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A Course of Lectures

ON

URINE, URINARY DEPOSITS, AND CALCULI.

DELIVERED AT THE PATHOLOGICAL LABORATORY, DURING THE SESSION 1857-58.

BY

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LECTURE IX.

[*Concluded from page* 871.]

CASTS OF THE URINIFEROUS TUBES.

Casts of the Renal Tubes are seldom found unmixed with other deposits. Frequently they are accompanied with much epithelium, and in many cases blood-globules are present in considerable number. Occasionally, however, we meet with a transparent and scarcely visible deposit, consisting entirely of casts. The connexion between different renal diseases and the presence of casts in the urine has been demonstrated most conclusively by Dr. Johnson; and for extended information on this subject, I must refer you to his well known work *On Diseases of the Kidney*. I shall here only attempt to draw your attention to the microscopical characters of those forms of casts which you are most likely to meet with in examining urine.

Of casts there are several different forms, which are to some extent characteristic of the morbid changes taking place in the structure of the kidney. At the same time, we must not express ourselves confidently, if only one or two casts of a particular kind are found. Thus we may meet with in the deposit of the urine from acute cases, which completely and perhaps rapidly recover, one or two cells containing oil, and one or two casts containing a few oil-globules; but we must not, from the presence of these, be led into the error of concluding that the case is necessarily one of fatty degeneration of the kidney. If, however, there were *numerous* cells and casts containing oil, such an inference would undoubtedly be correct. We must not expect to find in one case *epithelial casts* alone, in another *granular casts* alone, in a third *fatty casts* alone, in a fourth none but *large waxy casts*, and so on; but we must be prepared to meet with several varieties in one case, and must ground our opinion in great measure upon the relative number of any particular kind of cast, and upon the circumstance of other deposits being associated with the casts. For instance, the presence of uric acid crystals and blood-corpuscles would render it very probable that the case was acute, and of short duration. The absence of these deposits, and the presence of a number of granular or perfectly transparent casts, which can only be seen when the greater part of the light is cut off from the field of the microscope, or the existence of *a number of oil-casts*, render it certain that the case is chronic. The former would indicate that the kidney was becoming small and contracted, while the latter variety of casts occur when it is often of large size and fatty. Such examples might be multiplied. When we consider how very numerous the secreting tubes of the kidney are, we cannot feel surprised that a different condition should exist in certain cases, in different tubes, at the same time; and, from careful *post mortem* examinations, we know that very different morbid appearances are often seen in different parts of the cortical portion of one kidney. It is not difficult, therefore, to account for the fact of the presence of casts differing much in their diameter and characters in the same specimen of urine.

As has been shown, the cast varies in diameter with that of the canal of the uriniferous tube; but probably, after its formation, it contracts slightly, and in consequence it readily passes from the tube, and escapes into the urine. If the epithelial layer on the basement membrane of the tube be of its ordinary thickness, we shall have a cast of medium size. If the cells be enlarged, and adhere firmly to the basement membrane, the cast will be fine and narrow; while, on the other hand, if the tubes be entirely stripped of epithelium, the basement membrane alone remaining, the diameter of the cast will be considerable. In describing the different varieties of casts, it will be convenient to divide them into three classes, according to their diameter.

You will find numerous figures of the various forms of casts in the *Illustrations of the Urine, Urinary Deposits, and Calculi*, Plates xiv, xv, xvi, xvii, and xviii. These figures have been traced, from the objects under examination, upon the stone from which the plates have been printed.

The first class of casts, which is by far the largest, will include casts of medium size; the second, those of considerable diameter; and the third will comprehend the smallest casts that are met with.

A. *Casts of medium diameter, about the* 1-700*th of an inch.*
1. Epithelial casts.
2. Pale and slightly granular casts, with or without a little epithelium, or epithelial *débris*.
3. Granular casts, consisting entirely of disintegrated epithelium.
4. Casts containing pus or blood.
5. Casts containing oil.

B. *Casts the diameter of which is about the* 1-500*th of an inch.*
1. Large transparent "waxy casts".
2. Large and darkly granular casts.

C. *Casts the diameter of which is about* 1-1000*th of an inch.*
Small waxy casts.

A. *Casts of Medium Diameter.*

Epithelial Casts are met with in great number in cases of *acute nephritis;* and their presence is generally accompanied with a considerable deposit of uric acid, and also with much free epithelium and epithelial *débris*. These casts often contain many perfect cells of renal epithelium, and not unfrequently blood-globules are entangled in them. (*Illustrations*, Pl. xiv, Fig. 1; Pl. xv, Fig. 1 *a*.)

Besides these casts, however, some of the larger casts, comprehended in the second class, may often be observed; and these have, as Dr. Johnson states, "a wax-like appearance"; or they may be dark and granular, or part of the cast may be so highly granular as to be quite opaque, while in another portion it may be perfectly clear and transparent. Sometimes also a few of the small "waxy casts" may be observed, and rarely a few of the cells may be found to contain well defined oil-globules.

Casts containing Dumb-Bells. In the urine of a patient suffering from cholera, after eighteen hours suppression of urine, I found a trace of albumen, with some very transparent casts entangling dumb-bell crystals of oxalate of lime. (*Illustrations*, Pl. xii, Fig. 1.) Octohedral crystals of oxalate were also present in the urine; but none were to be seen in the casts.

Crystals of triple phosphate and octohedra of oxalate of lime are sometimes met with in casts. Not unfrequently perfectly dark casts are observed. The opaque appearance is due to the presence of urate of soda, which is proved by the fact of the casts becoming perfectly transparent upon applying a gentle heat to the slide upon which the specimen is placed. (*Illustrations*, Pl. xiv, Fig. 4.) These casts appear white by reflected light.

In *chronic nephritis*, a considerable number of "granular

epithelial casts", of medium diameter, will be present in the early stage of the disease. In the second stage, the granular casts become more abundant, and often form a white deposit at the bottom of the vessel.

Dr. Johnson says that, in the third stage, there may be an abundant deposit composed of granular casts and disintegrated epithelium; or secondly, the granular casts may be mixed with large waxy casts, with a sharp and well defined outline; or thirdly, the waxy casts may be in small number, and mixed with a few granular casts and disintegrated epithelium. Casts from a case of chronic nephritis are represented in the *Illustrations*, Pl. xv, Fig. 2; Pl. xvii.

Casts containing Oil. In that condition of the kidney termed "fatty degeneration", the pale albuminous urine frequently contains a number of casts which appear to be made up of oil-globules, or composed of cells containing oil. In adults recovering from acute nephritis, it is not uncommon to find a few oil-particles in the casts, and cells crammed with small oil-globules floating in the surrounding fluid; but at the same time, if there be a greater number of granular or epithelial casts, the presence of the oil need not excite any apprehension for the patient's safety. If, however, on the other hand, the oil casts increase while the other casts diminish in number, we should probably find that the case would become one of confirmed fatty degeneration. The composition of the oil in these cases has been alluded to. (See *Illustrations*, Pl. xviii, Figs. 1 and 2.)

Fat-Cells. Besides the occurrence of fatty matter in casts, and in cells entangled in casts, it is very commonly met with in cells, in the urine; and occasionally these cells are present without any casts. They consist usually of epithelial cells of the kidney, enlarged and gorged with oil. Sometimes they contain a few oil-globules, which are well defined, and are seen to be distinct from each other; while, in other instances, the globules are very minute, and so crowded together that the cell appears perfectly opaque and dark, resembling the so-called inflammatory globules. Although I use the term *cell*, it is not possible in many cases to demonstrate the existence of a *cell-wall*. Occasionally, cells containing oil-globules may be derived from some other part of the mucous surface of the urinary passages. I have seen epithelial cells, and collections of oil-globules which have been removed from the membranous portion of the urethra. It is therefore important to bear in mind that cells containing oil-globules are occasionally met with in cases where the kidneys are not diseased.

Casts containing Blood-Globules are not unfrequently met with in the deposit of the urine in acute nephritis. They are usually of medium size, and often contain a certain quantity of epithelium. (*Illustrations*, Pl. xv, Fig. 1 *b*.)

Pus is very rarely found in casts, although some cells agreeing in character with the pus-globule, in the development of two or three little circular bodies in the centre when acted on by acetic acid, are not unfrequently observed. Cases in which the urine exhibits these characters are generally acute, and terminate fatally in a short time. A beautiful specimen of the urinary deposit in one of these rapidly fatal cases is represented in Plate xvi of the *Illustrations*. At the same time, I have seen two or three instances occurring in children where these casts and cells were most abundant, which have completely recovered.

B. *Casts of considerable Diameter.*

The *large waxy casts*, of about the one five-hundredth of an inch in diameter, are obviously derived from tubes which have been entirely stripped of epithelium; for under no other circumstances could casts of this diameter be formed. They are often met with in small quantity in the urine of acute desquamative nephritis; but when present in very large quantity, a condition of kidney to which Dr. Johnson has given the name of "waxy degeneration", from the peculiar glistening appearance of the substance with which the tubes are filled, is present. Large waxy casts are represented in the *Illustrations*, Pl. xvi, *a* and *b*.

In some cases, at least, it is certain that these casts of large diameter are formed in the lower part of the straight portions of the uriniferous tubes where these are very wide. Often it is evident that the material is deposited in successive layers. In Fig. 29, at *a*, such a cast is represented. Although in some cases the convoluted portion of the uriniferous tube is wide enough to admit of the formation of one of these large waxy casts, I have never seen an instance where the tubes between the cortical and medullary portion of the kidney were wide enough to permit them to pass through. There is evidence that much of the material is in some cases deposited in the lower straight portion of the uriniferous tubes. (*Illustrations*, p. 39; *Archives of Medicine*, vol. i, p. 303.)

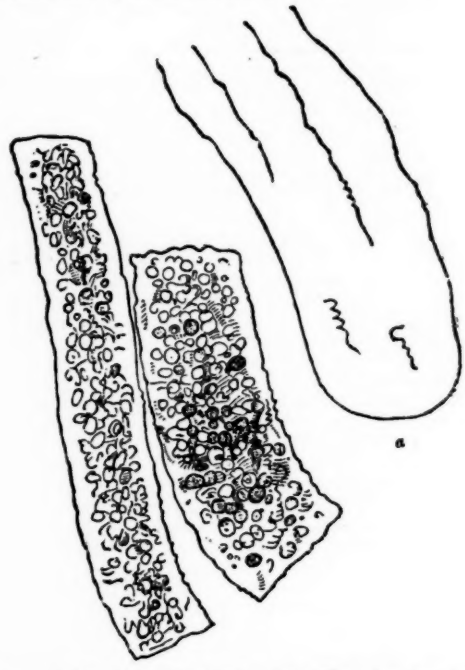

Fig. 29.—*a*. Large transparent waxy cast. The other two figures represent casts which have received a deposit upon their outer surface during their descent from the kidney, probably in the straight portion of the uriniferous tubes. X 215.

C. *Casts of small Diameter.*

The small waxy casts, on the other hand, are derived from tubes in which the epithelial lining is entire, and in which there appears no tendency for desquamation to take place—a condition to which the name of "*non-desquamative nephritis*" has been applied. The urine is either found to contain no deposit whatever, although albuminous, or only some of the small waxy casts, not more than one-thousandth of an inch in diameter, can be found. In some of these cases, symptoms of blood-poisoning come on, and a rapidly fatal result occurs. The casts have a perfectly smooth and glistening surface, and present in the microscope the same general appearance as a piece of the elastic lamina of the cornea. (*Illustrations*, Pl. xiv, Fig. 6.) It is probable that some of these very fine casts come from contracted tubes, and perhaps from tubes which have not attained their full development.

Of Casts in a clinical point of view. It is not too much to say that the treatment of renal disease has advanced within the last few years more than that of any other class of diseases. Frequently we are able to say most decidedly what course should be followed in a given case; and we are able to indicate exactly the conditions which will retard the progress of the malady, and to warn the patient of those which would certainly hasten the extension of disease. I do not think I have at all exaggerated the improvement which has taken place in this department of medicine; and when we reflect that we possess more positive knowledge of the anatomy and physiology of the kidney, and that its morbid changes have been more successfully investigated than those of other important organs, we can scarcely help attributing the improved treatment to our increased knowledge, and we have every encouragement to hope that ere long a similar result will be seen as distinctly in other branches of medicine. I am quite sure that many patients with chronic renal disease are now kept alive, and even enjoy life, for many years longer than was possible at a time when the exact nature of their malady was not understood, and when the treatment considered right was of a kind which no one, knowing anything of the nature of the changes taking place, would now think of adopting.

I do not propose to discuss the treatment of these diseases in the present course of lectures; but let me say that, as a general rule, it is very simple; and, if you feel satisfied of the nature of the disease, you will in many cases at once determine

the right course of treatment to be pursued, especially if you consider carefully the physiology and pathology of the organ. But let me warn you of the danger of making a diagnosis too hastily. If you do not feel quite sure you are right in the opinion you have formed of the case, do not act as if the diagnosis was decided; for, although the treatment is simple, the harm resulting from acting upon a wrong view may be irreparable. The application of cold where warmth is required, the administration of stimulating diuretics where the kidneys require rest, the abstraction of blood where the patient has but too little for the requirements of his system, may be carried out to the detriment of the patient, upon a false view of the nature of the disease. Your observation of these cases cannot be too extended, and you should especially study the history of the disease as recorded in many published cases. I hope, from these observations, you will not think I undervalue the study of the treatment of disease, and infer that I only attach importance to the diagnosis of the case; but will only conclude what I believe cannot be impressed upon you too strongly—that important as a knowledge of various plans of treatment, and of the action of various drugs, undoubtedly is, it is of no real use—it is even worse than useless—unless the practitioner possess that fundamental knowledge of the actual changes taking place in the various organs of the body in health which will alone enable him to arrive at a correct conclusion as to the nature of a case of disease.

In the next lecture, we shall consider the characters of the second class of deposits, which are characterised by the formation of a bulky, dense, opaque, and often abundant precipitate, which sinks to the bottom of the vessel, leaving a clear or more or less opaque supernatant fluid. The most important substances occurring in this second class are deposits of *pus*, *phosphates*, and *urates* of *soda* and *ammonia*; and in certain cases, by examination with the unaided eye, it is quite impossible to decide which of these deposits is present. By the application, however, of a few simple tests, or by submitting a specimen to microscopical examination, we are enabled to ascertain with certainty which of the three deposits is present.

Addresses and Papers

READ AT THE

TWENTY-SEVENTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

[*Held in LIVERPOOL, JULY 27th, 28th, and 29th*, 1859.]

RETROVERSION OF THE GRAVID UTERUS.

By THOMAS SKINNER, M.D., Physician to the Northern Dispensary, Liverpool; Fellow of the Obstetrical Society of London, etc.

[*Read in abstract, 29th July*, 1859.]

II.—RETROVERSIO UTERI POST CONCEPTIONEM.

[*Continued from page* 873.]

(*i*) *Diagnosis.* It is not my intention to treat this part of the subject in detail; yet I think there is room and necessity for the following practical remarks. The diagnostic signs of retroversion of the gravid uterus are:—

1. *Dynamic Symptoms.* If the displacement has taken place suddenly, most generally there will be complained of enuresis, tenesmus, and a sensation of bearing down in the pelvis, which symptoms are reflex in their nature, and almost wholly beyond the control of the patient. Pain of a sympathetic kind will also be complained of over the sacrum, round the haunches, and sometimes proceeding down the thighs, this latter being likened to a sensation of dragging. Sooner or later the most prominent and pressing symptom, and one for which our services are almost always required, is retention of urine. I cannot speak for town practice, but in country districts, this symptom is always greatly aggravated by domestic and neighbourly officiousness—the patient, in the absence of the "doctor", being pressed to take saltpetre and sweet nitre in linseed tea, or such like household remedies. The bowels, if not previously confined, are almost sure to become so; and in the majority of cases they rapidly become filled with flatus, particularly in hysterical women. As the bladder distends, and if no relief is obtained by catheterism or otherwise, all the symptoms, constitutional and local, common to overdistension of the bladder are added. If the retroversion is slow in its development, as in cases of retroversio uteri *ante* conceptionem, the symptoms vary both in intensity or urgency, and in the rapidity of their accession. They are already detailed at the beginning of page 492. I think it is of importance to add, that one or more, or even all, of these signs may be absent at any period of retroversion of the gravid uterus.

II. *Physical Signs.* 1. *Abdomen.* The external appearance of this region will depend upon the fulness of the bladder, which may be altogether empty, or so distended as to occupy the entire of the abdominal cavity, simulating pregnancy in its last stage, as in Mr. Wall's case. Percussion affords dulness over a circumscribed tumour, which is painful on pressure, and which can be moved laterally in most cases, but neither upwards nor downwards. Succussion, or the *tactus eruditus*, as a rule, can at first detect no fluctuation, which arises from the tenseness of the muscular fibres of the bladder and abdomen, and from the incompressible nature of the contained fluid; but subsequently, fluctuation is more distinct, because the muscular tissue becomes paralysed and relaxes from the continuance of the over-distension. Auscultation over the abdomen cannot detect any sounds, except those arising from muscular action, flatus in the intestines, or from the beating of one or more of the larger arteries. As regards the form of the tumour, the late Dr. Ramsbotham in his admirable *Practical Observations*, states: "Let it be kept in mind, that the fundus of the bladder is excluded from the cavity of the pelvis, in consequence of that cavity being already occupied by the enlarged uterus, and that the vesical tumour will be readily traced, extending itself from ilium to ilium in a greater degree than upward." In a foot note, he adds: "This fact is apparent, upon the comparison of the shape of an inflated female bladder with that of a male one." (*Op. cit.*, part II, p. 431.) The above statement may be correct, but I am inclined to take another view. In the only two cases of retroversion of the gravid uterus which I have seen, attended with retention of urine, the form of the abdomen exactly resembled that of pregnancy. Hunter and others have made the same observation; and if further proof is wanted, I have only to refer to the copper-plate representation of the form of the bladder as it appeared when the abdomen was opened at the *post mortem* examination of Mr. Wall's case. (Hunter *On the Gravid Uterus*, Sydenham Society's edition.) Dr. Ramsbotham's idea is a very natural one; but when we consider that the posterior portion of the *fundus vesicæ* is drawn backwards and downwards, on account of its attachment to the uterus by the utero-vesical fold of peritoneum, we need not wonder that, when the female bladder is over-distended and the uterus retroverted, the bladder should be found to be really narrower below than above.

2. *Pelvis, Mamma, etc.* On instituting a vaginal or rectal examination, the finger or fingers at once impinge upon a globose surface, which, on being traced, is found to block up the cavity of the pelvis more or less completely, according to the stage of gestation at which the ovum has arrived. Up to three months and a half, while the uterus is pyramidal in form, the blocking up is not so perfect as it is from the fourth to the fifth month, when it is spherical in form, and about six inches in diameter every way. In most cases, it is more or less difficult to reach the os uteri with the finger or with a sound, whilst in others it is quite impossible to do so. If the patient is lying upon her back, and it is possible to explore the vagina, its axis will be found to be directed upwards towards the pubes, and its posterior wall will feel tight, as if put upon the stretch. The sensation communicated to the finger on pressing the tumour varies, as it is sometimes hard and resisting, while at other times it is soft and yielding, and not infrequently it communicates to the touch a sense of fluctuation. Most generally, the sensation is that afforded by a round body, which is soft, smooth, yielding, inelastic, and possessing an indistinct feeling of fluctuation. Auscultation *per vaginam* affords us, even at an early stage, the uterine souffle, and if the patient is four and a half or five months pregnant or more, we ought to hear the fœtal heart, if the fœtus is alive. If the patient is a primipara, the peculiar change in the mammary areola and other signs of pregnancy will most likely be present; in particular, kyestein will almost always be found in the urine.

(*k*) *Differential Diagnosis.* To describe the various pathological conditions which might be mistaken for, or which might give rise to phenomena simulating retroversion of the gravid uterus, would involve an amount of research and space uncalled for by the nature of this paper. I shall therefore content

myself by referring to a few cases recorded in the pages of medical literature, which I am inclined to believe have been mistaken for retroversion of the gravid uterus.

1. *Ovarian Dropsy.* The late Dr. Ramsbotham gives the details of an interesting case of ovarian dropsy, resembling retroversion of the gravid uterus. (*Practical Observations*, Part II, p. 452.) At the *post mortem* examination, on dividing the abdominal parietes, a large cyst occupied the anterior part of the peritoneal cavity, on the removal of which, the uterus was seen to be healthy, unimpregnated, "*and lying upon a smaller cyst filling up the whole cavity of the pelvis,*"* which cyst might have contained two or three pints of fluid. The smaller cyst was adherent to the whole of the parts within the cavity of the pelvis, especially to the rectum. The upper and larger cyst proved to be the left ovarium, in a dropsical state; the under cyst was the right ovarium, in a similar state. "The uterus was situated horizontally between the two, *with its orifice above the pubis.*" In this case, all the phenomena of retroversion of the gravid uterus were present; the os uteri was beyond reach; and there was retention, the catheter withdrawing a washhand-basinful of urine. The taxis and perforation of the membranes were attempted in vain by "celebrated accoucheurs".

I would only remark that, in regard to the differential signs in this truly interesting case, if the previous history could throw no light upon it, there are only two which could be relied upon, namely, the absence of the uterine souffle on auscultating *per vaginam* or over the pubis, and the absence of kyestein in the urine; both of which signs, I imagine, were unknown to the profession in 1820. M. Nauche, I believe, was the first who discovered kyestein; he announced it in the *Lancette Française* for 1831. So far as *vaginal* auscultation is concerned, I believe that my much esteemed friend Dr. Keiller of Edinburgh was the first who cultivated it and introduced it into British practice. (See *Edin. Monthly Journal*, 1855 56, p. 1134.) In other cases of ovarian dropsy simulating retroversion of the gravid uterus, where the os uteri is within reach, the uterine sound will be found to afford valuable information. I need only observe, however, that too great care cannot be taken whilst using it, for fear of producing abortion or something worse; and when such fear exists in the mind of the operator, it will be well to leave the sound alone. The same danger is still more to be dreaded from the use of the exploring needle. I should not, however, hesitate to use either instrument, if necessary, or *in extremis.*

2. *Extrauterine Fœtation.* Extrauterine fœtation has been mistaken for retroversion of the gravid uterus. The late Professor Dewees alludes to a case of the kind related by Giffard, where the sacculus containing the ovum occupied the cavity of the pelvis, displacing the uterus upwards and forwards, the uterus at the *post mortem* examination being found "in the forepart of the belly, some distance below the navel" (Giffard's *Midwifery*, p. 335, and *Philad. Jour.*, vol. i, pp. 248-9). The differential diagnosis in such a case would be more difficult than in cases of ovarian tumours, because, I am not aware that any observations relative to the presence or absence of the uterine souffle, or of kyestein in the urine of cases of extrauterine pregnancy have been made. The previous history of the case, the state of the breasts, the active or passive state of the ovaries, and the yielding or not to the use of the taxis, in fact, the totality of the signs and the exercise of patience will form our best guides in such cases, after relieving such symptoms as demand more immediate attention.

3. *Pelvic Hæmatoma; or Retro-uterine Hæmatocele.* The pathological condition which has been most commonly mistaken for retroversion both of the impregnated and unimpregnated uterus is retro-uterine hæmatocele. The two following cases of the latter condition are instructing:—

M. Monod, at a meeting of the Surgical Society of Paris, stated, that a woman was admitted into the Maison de Santé with severe pain in the pelvic region. The case was first looked upon as one of *retroversion of the uterus*, but it was afterwards discovered that a considerable fluctuating tumour existed just behind the womb. Two punctures were made at a little interval, both of which yielded blood; the pain, however, did not diminish, and the patient died. "On a *post-mortem* examination, a large sac was found behind the uterus, and close upon that organ; it was divided into two distinct halves, both filled with blood" (*Lancet*, vol. ii, p. 10, 1851).

In 1857, I saw a very large pelvic hæmatoma in the private practice of Professor Simpson, which had been mistaken by many excellent accoucheurs for a retroverted uterus, and it was no discredit to any one to make such a mistake, I never felt or saw any two conditions more resembling each other. There was no doubt it was a case of retro-uterine hæmatocele, displacing the *cervix uteri* upwards and forwards, so as to be felt with difficulty above the symphisis pubis, as Dr. Simpson opened the tumour, *per vaginam*, in presence of Dr. Alexander Wood, and Dr. Cruickshank of Edinburgh, and myself, after which black grumous clots came away for several days. The patient made a perfect recovery.

The differential signs to be relied upon in diagnosing this condition from retroversion are:—the absence of the uterine souffle, *per vaginam*, as well as the other signs of pregnancy. The use of the uterine sound, if practicable, and of the exploring needle if necessary. If the blood-contents are coagulated, there will be a peculiar doughy feel; if fluid, fluctuation is not necessarily distinct. As pelvic hæmatoma, or retro-uterine hæmatocele, is almost invariably produced at a catamenial period; as the patient very generally and suddenly assumes and retains a ghastly anæmic appearance, with great depression of the vital power, especially where the extravasation is extensive; and as these conditions are peculiar to pelvic sanguineous cysts, and in no way common to retroversion of the gravid uterus, whether slowly or suddenly produced; these signs are invaluable as differential guides.

The following cases are recorded in our journals, and quoted by distinguished authorities as cases of retroversion of the gravid uterus; I have reserved them from my collection as at least doubtful, as they seem to my judgment to be cases of pelvic hæmatoma, or retro-uterine hæmatocele:

Case I. M. Jourel, of Rouen, relates a very interesting case in the *Bulletin de la Faculté de Médecine de Paris*, for 1812. The patient was 23 years of age, and was supposed to be three months and a half pregnant of her second child. Retention of urine ensued, on a frolic, where the patient was foolishly suspended by her arms and legs. The taxis, and perforation of the membranes failed to reduce the tumour in the pelvis, which was then tapped, when a little bloody serum came away occasionally, and about fourteen days after the operation, the uterus spontaneously righted itself. No fœtus nor ovum ever came away, and menstruation was established two months afterwards. As there remained a doubt about the existence of pregnancy, and as the Academy was desirous of testing the value of Dr. Hunter's suggestion of tapping the amnion in such cases, a commission of inquiry was instituted. The commission concluded in favour of the operation; and as to the pregnancy, although neither fœtus nor secundines had ever come away, they concluded that they had been "*dissolved, and had disappeared in the lochial discharge.*"—(*Edinburgh Medical Journal*, 1830, p. 264).

Case II. The case recorded in the *Lancet*, for 1856, by Dr. Winn, and Mr. Eagle, was most probably of a similar nature. The patient is said to have been three months pregnant, when retention of urine made its appearance, with *sudden anæmia and alarming exhaustion.* Nothing in the shape of a fœtus or ovum was discharged from the uterus.

Case III. The following case is even more marked; it is recorded in the *Medical Commentaries*, vol. x, p. 254, as happening in the practice of Mr. White, of Paisley. It is quoted by Mr. Weir in his excellent article on retroversion of the gravid uterus in the *Glasgow Medical Journal*, vol. i, p. 273, as one of those cases where "the uterus could not be moved." It is also quoted by Mr. Samuel Cooper in his *Dictionary of Surgery*, with the same object in view. The patient was a multipara, 26 years of age, and was supposed to be three months advanced in pregnancy. She was attacked with lumbo-sacral pain, and retention of urine, after carrying a pailful of milk upon her left haunch. Catheterism, venesectio, the warm-bath with clysters and the taxis failed to reduce the tumour on two occasions. Perforation of the membranes also failed. Mr. White first saw her on January 21st, 1788; on April 7th, following, "she had a very copious evacuation by stool. *Her fæces were mixed with some puriform matter, and a great quantity of black grumous blood.* From the commencement of this discharge she began to recover daily." She ultimately became quite well and menstruated on May 30th, the same as usual, only more scantily; her stools also became smaller than formerly. *Neither fœtus nor secundines were ever expelled.*

[To be continued.]

* Italics in quotations are my own.—T. S.

Original Communications.

TEN YEARS OF OPERATIVE SURGERY IN THE PROVINCES.

By Augustin Prichard, Esq., Surgeon, Clifton, Bristol.

III.—Operations on the Breast.

The third subdivision will contain the operations upon the breast, all of which were on female subjects; and they are not very numerous. The diseases treated in this way were, hydatid tumour, cystosarcoma, the chronic mammary tumour, and carcinoma.

Hydatid Tumour. Case lxxxv. T. C., aged 22, had discovered a tumour as large as an apple just above the right breast, rather to the outer side, towards the edge of the axilla. She reported that it arose from a strain of the arm. It was extremely hard, and I considered it to be one of the chronic mammary tumours seen in young women; and it had been a year growing to the size above named. She agreed to its removal by operation, which was done without chloroform, by a vertical incision about three inches long, exposing the surface of the tumour. The next incision accidentally punctured the swelling, and a jet of pus started out a considerable distance. Thinking that I had mistaken a chronic abscess for a tumour, I laid it open, when a round semitransparent hydatid slipped out, like a large white grape. I dissected out the sac with some little difficulty, on account of its adhesion to the pectoral muscle. There was no hæmorrhage, and the wound healed almost completely by the first intention; and there was no suppuration. She has remained well.

This case had one point of practical interest. Had I suspected the presence of pus, and found my suspicions confirmed by the grooved needle, I should probably have treated the disease as an abscess, and have punctured, but not cured it; for the destruction of the dense cyst through a small aperture would most likely have been a troublesome work of weeks or months, instead of the three or four days which the cure actually required. Here, therefore, the grooved needle would have been a false guide.

Cystosarcoma. Case lxxxvi. H. R., aged 40, married, had one child when twenty years of age, and had suffered from a swelling in the left breast for six months before I saw her, when it was painful, and of the size of an apple, connected with the mammary gland.

I removed the tumour without any skin, opening two cysts casually during the operation. Four vessels required ligature, and three sutures were used.

She suffered for many days from the vomiting produced by chloroform, and suppuration occurred in the wound. It ultimately healed entirely, and she went out complaining of pain in the scar.

The tumour was a genuine cystoma, with various cysts and fibrous matter, very dense and firm.

Case lxxxvii. S. M., aged 22, had been the subject of a painless tumour in the left breast for some years; but, having been confined a few months before I saw her, it had become enlarged, painful and soft in parts, discharging some pus. I opened it freely under chloroform, with the hope that it would gradually shrink, but without any good result; and I subsequently removed it by operation, which was unusually troublesome, in consequence of the previous inflammation, and incisions and adhesion of the skin. Six ligatures and four sutures were used. She recovered well after the operation; but the healing was rather slow.

The tumour was hard, white, and fibrous, with suppurating cavities; and, when examined under the microcope, it showed fat and oil-globules; and in the softened parts of it were round and oval and partly opaque masses of granular cells, looking something like pigment-cells, except that the colour was not so dark. They were entirely soluble in caustic alkali, and probably presented the granular appearance from the presence of minute oil-globules.

I shall have to notice a similar structure in other tumours; and this has been described by some authors as being the fluid found in cystic diseases.

Chronic Mammary Tumour. Case lxxxviii. M. A. B., aged 22, had a small, hard, and very sensitive tumour in the left breast for three years, and had been subject to various treatment to induce absorption before she came under my care; and the swelling had ultimately become adherent to the skin and the nipple. I removed it, using pins and twisted suture in bringing the parts together, and a compress and bandage. A slight attack of erysipelas came on about the fourth day, followed by acute inflammation of the opposite breast, threatening suppuration. This was checked by leeches, and she went out cured.

The tumour was as large as a chestnut, hard and solid, and surrounded with a thin cellular cyst. Upon section with a scalpel, it caused a grating sound, described by some writers as peculiar to scirrhus. The microscopic examination showed a large quantity of the fibrous element in its substance, and a number of small cells, some with nuclei, but many without, free, and entangled in the fibre. In addition to this was fat, and a considerable number of minute oil-globules.

These microscopic appearances are, according to my experience, constant to the chronic mammary tumour, such as I have described in this case; and it will not be necessary to repeat them in my other cases of the same disease.

Case lxxxix. A. D., aged 22, had the tumour in the right breast two years. Her health was good. She had been delivered of a child four years before. The tumour was hard, as large as a chestnut, and not sensitive; and it gave rise to no symptoms, but was gradually increasing in size.

The disease was easily removed, although a part of the mammary gland was divided. She took but one drachm of chloroform. One ligature only was necessary. Some induration remained about the wound for a week or two after it had healed; but it afterwards disappeared entirely, and she went home cured.

Case xc. E. W., aged 30, with a small hard round tumour of the left breast, connected with the upper edge of the mammary gland. The operation of removal was easily performed, and the parts brought together with pins, which were removed on the fourth day; and the wound healed rapidly.

Case xci. A. P., aged 19, with a rounded but lobulated tumour at the upper part of the left mammary region. It was readily removed, and the wound brought together by two pins and adhesive. She was cured in ten days.

Carcinoma. Case xcii. M. V., aged 40, admitted into the medical wards on account of rheumatism, was transferred to my care in consequence of the existence of a mammary tumour, which had been growing for four years, until it had reached the size of an orange. The skin had become adherent to its surface, and there was a large and hard gland in the axilla.

Chloroform was administered; but she became so faint and collapsed, that she appeared dying; and the operation was postponed until a future day, when I performed it without chloroform, removing the tumour with the adherent skin, and drawing out two hard glands from the axilla. Five sutures were required to keep the sides of this large gap together, and they were supported by compress and bandage. She went away well in about six weeks; and I saw her once or twice afterwards, and ordered her some cod-liver oil, to try and improve her general health, and she became extremely florid and fat.

About six weeks after I last saw her, she died of apoplexy; and the *post mortem* examination revealed cancer of the cerebrum and cerebellum, and lungs and liver. The disease was composed of well marked cancer-cells, with nuclei and nucleoli. In the tumour itself, the cells were caudate, round, and fusiform; whilst in the glands they were simply round.

Case xciii. E. S., aged 67, underwent excision of the right breast three years before I saw her; and she consulted me in consequence of the return of the disease in the form of a small, hard, and painful tumour under the scar of the old operation, with a small hard gland in the axilla. I removed the tumour, with a portion of the skin above it, without chloroform; and, after a little suppuration, the wound healed, and she returned to the country. I believe that the disease soon returned in the scar, but the ultimate result I did not hear.

The microscope disclosed excellent specimens of cancer-cells, with nuclei and nucleoli. Some of the cells were round, but most of them were pyriform or caudate, which appears to me to be the most common form, at any rate, in these tumours.

Case xciv. E. W., aged 44, with a tumour of the right breast of ten years growth. It had latterly increased more rapidly, and was about to ulcerate above the nipple, where it was adherent to the skin. The swelling is of the size of her fist. Her general health is good, and she is stout and well.

I removed the tumour and adherent skin freely down to the pectoral muscle. Eight ligatures and four sutures were used,

and a bandage and compress applied, with the arm bound down to the side. She required opium tolerably freely after the operation, but recovered fairly, so that she was made an out-patient in less than three weeks. A little suppuration ensued at the outer part of the wound, with some suspicious induration, which, however, disappeared after a few weeks.

Three months after the operation, the wound was perfectly sound; but there was swelling, with induration of the cervical glands, just above the clavicle.

The microscopic examination showed excellent specimens of cancer-cells; that is, cells of varied form, round, oval, caudate, and fusiform, with well marked nuclei and nucleoli.

Case xcv. A. S., aged 50, with a small circumscribed tumour of the breast of eighteen months standing; it was situated about two inches above the nipple, and was immovable; that is, adherent to the fascia covering the pectoral muscle. The nipple was retracted and sore, with a little discharge from it.

By an oblique incision downwards and outwards, I removed the nipple and the tumour, and the fascia upon which it rested, dissecting the muscle clean. Three vessels were tied; and sutures, compress, and bandage, were applied. She went away cured in three weeks, the wound being healed, and her health being good. The cancer-cells were peculiarly large, and the nuclei and nucleoli very numerous and distinct, and mixed with fat and oil-globules. The disease returned within two years.

Case xcvi. E. J., aged 55, with a hard tumour of the right breast, with two or three nodules extending to the axilla. I removed the breast, with the hard axillary glands; but found considerable difficulty in extracting the latter. Four vessels were tied, and the parts brought together in my usual method. The only troublesome symptom was the sickness from the chloroform. I gave her opium and plenty of stimulus, and she did very well. The wound was healed in eighteen days. The microscopic examination confirmed the opinion that the disease was cancerous.

Many years have elapsed since this patient was operated on, but I have not heard of her.

Case xcvii. A. G., aged 68, with a hard and heavy scirrhous mass hanging on the left breast. I removed the whole of it, with the loose skin in which it was suspended. It was brought together by six sutures, adhesive, compress, and bandage. The wound was a long time healing, but little union by the first intention having taken place. The tumour was extremely hard; and from some parts of it, when divided, black matter flowed. The microscopic examination showed large distinct pyriform, round, and triangular nucleated cells. The disease returned.

Case xcviii. E. G., aged 39, with a hard tumour in the left breast. She had borne a family; but, owing to some peculiarity in the nipple, had never been able to suckle her children upon this side. The nipple was retracted, and skin adherent. I removed the whole breast, with the tumour, skin, and nipple, leaving a large deep gap, which bled very freely, and required several vessels. The wound was brought together by pins, adhesive, compress, and bandage; and it had healed in a little less than a month. The patient went out quite well.

I have no record of the microscopic appearances in this case; and I never heard of her again, although some years have now elapsed since the operation.

Case xcix. M. B., aged 56, with a large hard tumour of the left breast, of only three months growth. The skin was adherent, and the nipple completely drawn in. I removed the whole breast with the tumour, tied four vessels, and used four sutures, adhesive, compress, and bandage. On the fourth day, she had a slight attack of erysipelas, requiring the removal of dressings and sutures, the application of the "Pigmentum Iodinii" (which we use of the strength of two scruples to one ounce of the spirit), and the internal use of the tincture of the sesquichloride of iron. The eruption soon subsided, and the wound healed; and she was dismissed cured.

The tumour was accidentally kept some days before I had an opportunity of examining it. The cells of which it was chiefly composed were very irregular in form, small, and nucleated. I never heard of this patient again.

Case c. J. T., aged 43, whose mother died of cancer of the breast, consulted me on account of a small, hard, and very sensitive tumour in the upper part of the left breast; and I recommended its removal. The patient was weak and in an extremely nervous condition, and I operated without chloroform. The incision was three inches long, and I divided the upper part of the mammary gland. She became very faint. There were some black spots in the tumour, of a melanotic kind. One vessel only was tied and two sutures used. The wound healed almost completely by the first intention, except the lower part, which remained open for some time; and it was nearly a month before she was quite well. Within another month, a small indurated mass had appeared at the side of the breast.

The microscopic examination of the tumour which I had removed was distinctly cancerous, large rounded cells, with very well marked nuclei.

There was something so extraordinary in the history of this patient, that our interviews were occasionally of the most comical description, although cancer truly is anything but an entertaining or jocose subject; and, although not connected with this particular operation, I will mention one or two facts, as a curious instance of deception.

She professed that she never ate anything besides a grape or two, or a minute fragment of biscuit, although I afterwards had good reason to believe that she did very well in that way; and she took opium largely, but of course denied it. She had become a Roman Catholic some time before the operation, for that was rather the fashion here at that date; and, with the greatest adroitness, she used to keep the Roman Catholic priests (and even the bishop too), as well as the evangelical clergymen of Clifton, waiting upon her. She would horrify the latter with some accounts of the cruel penances she had to undergo, how she had to kneel on a hard stone for so many hours, or until she was borne away fainting; and she would entertain the former with fictitious remarks of a contemptuous and abusive kind, said to emanate from the English ecclesiastics. I sometimes encountered one set of divines, and sometimes the other, in her room, trying to convince her vacillating mind; and she all the time was enjoying her opium, and laughing at both.

I believe that she submitted to the operation of excision of the breast (and it was done without chloroform) in order to raise a stock of sympathy among her friends, and to derive the solid advantages that usually accompany these kind feelings, and which a clever person like my patient knew well how to extract. Another motive was to keep her creditors at a respectful distance; for all the furniture that she was using had been obtained by false representations; and during my attendance, on one occasion, she had the doors barricaded, and a man on guard to keep out the wrathful creditors, who had been duped; and I had to find my way in by a very circuitous route; while, on another occasion, the house had been invaded, and most of the things carried off. Some months after I had ceased to attend her, she was tried for swindling, and condemned to a year's imprisonment, which I believe she underwent; and I have lately been given to understand that she is well, and is carrying on her avocations in a neighbouring town.

Case ci. H. H., aged 64, with a large tumour in the left breast. It was very hard, and was increasing. I removed it very freely, and there was unusually free hæmorrhage, two of the vessels which had been divided being very large; and when all the bleeding had been stayed, there was an enormous gap in her side, which was brought fairly together by sutures and bandage.

The patient was a very large and fat woman, with a very feeble pulse; and I therefore gave her but half a drachm of chloroform altogether, but it seemed to act satisfactorily. She was very low and weak for a few days after the operation, but revived with the aid of stimulus. She had a slight attack of erysipelas in the face; but the wound was unaffected, and healed chiefly by the first intention. The patient suffered for a time from a slough in the back, which, however, also healed readily; and she went out cured. I have not heard of her since.

Case cii. E. H., aged 36, had a tumour of the left breast for two years before I saw her; it was very hard, and attached to the upper and inner edge of the gland. I removed all the tumour, with some skin and the surrounding tissues; and, after tying several vessels which bled freely, I brought the wound together with three pins. She went on perfectly well. The parts were kept in contact, and healed by the first intention, except the lower part, from which some bloody matter oozed for a few days.

The microscopic examination showed well marked cancer-cells.

A month or two after the operation, a small hard tubercle appeared upon the skin at the points of entrance and exit of each pin, making six small and hard projections, in two regular rows of three each. The patient recovered her health and

strength; and after a time the induration entirely disappeared, and she has remained quite free from disease up to the present date.

Case cIII. E. O., aged 36, a spare woman, with a considerable tumour in the left breast. It had been growing for a great length of time, and her health had suffered considerably. At the operation, it was necessary to remove a large quantity of skin; and the disease extended high into the axilla, so that there was some difficulty in removing it entirely; but it was accomplished satisfactorily at last, although she lost a considerable quantity of blood. A large number of ligatures were required, and three sutures.

Her recovery was satisfactory. Very little union by the first intention took place; but the parts were kept in good position, and ultimately healed well. One ligature was so firmly attached that I could not get it away, having tried elastic pressure, traction, and other means to loosen it. It was cut off short, and remained attached when she went home, all the rest of the wound being soundly and firmly healed.

The tumour showed, under the microscope, granular blood-corpuscles and large nucleated cells, many of them having dark contents, of a granular appearance, which were probably minute particles of oil or fat. A section of the tumour had the ordinary aspect of a scirrhous growth.

She has remained well up to the present date, and there has been no return of the disease. The ligature came away after some weeks.

Case civ. M. S., aged 45, with a hard nodulated tumour of the left breast, not adherent to the subjacent parts, and without any glandular complication. I removed the disease without the skin. Three vessels were tied, and three sutures used. I removed the dressings and sutures on the fourth day, and found it nearly healed; and she soon recovered.

The microscopic examination showed cells of various sizes, nucleated, many of them containing granules of pigment, almost black. The history of the tumour and its appearance on section were clearly those of cancer.

At the present time, when these cases are being prepared for publication, this patient is well, and there has been no return of the disease, now two years and a half after the operation.

Case cv. H. T., aged 50, with a small hard tumour of the left breast, which I removed with the skin and the nipple, including two or three separate nodules which were near, but leaving an enlarged and hard axillary gland. The bleeding was very free; and six ligatures were required, and three sutures, with bandage. She required stimulus tolerably freely afterwards, but went on well, without any unfavourable symptoms; and when she went out, the wound was quite healed, and her general health much improved.

The only remaining case is one in which no operation was performed; but, as it occurred at the period when the caustics were so much used, I thought it a favourable instance in which to try that plan, and it is but fair to record it.

Case cvi. A. B., aged 60, with a distinct, very hard tumour in the breast. I applied the chloride of zinc, after dissecting off a patch of skin while the patient was under chloroform. This was repeated several times, and a deep slough was formed, and it turned out in a mass, leaving for a time a tolerably healthy surface; and a partial closure of the wound took place, but, before it had healed, the disease returned. I applied caustic several times; but the ultimate result was most unsatisfactory, the patient having gone home in a very weak state of health, with a large carcinomatous ulceration in the place of the tumour that had existed before, and I have little doubt that she speedily died.

Remarks. Of this series of twenty-two cases, one was hydatid disease, two were cases of cysto-sarcoma, four of the chronic mammary tumour, and fifteen of carcinoma; and this is probably about the usual proportion in which disease attacks the female breast. The immediate result of the operations was satisfactory in every instance. All the wounds healed well, and the seven first cases were cured entirely; but, although they all recovered, I do not conclude from this amount of success that the operation of removal of the breast is devoid of all danger; but, compared to the gravity of other questions connected with these cases, I do not think much stress can be laid upon it.

The subject of cancer of the breast is a sad one, and the amount of permanent success is generally very discouraging; but in looking over my cases, few as they are, the results are of such a nature that I should be disposed to recommend the operation in very many instances. I do not remember the number of patients applying to me with disease of the breast in whom no operation was deemed advisable; but this is a matter of less importance, for here again I cannot see how any practical aid can be obtained for any special case from numerical considerations.

Of the fourteen cases of cancer operated on, all healed well, and for a time each patient was better than she had been before. One died very speedily of apoplexy; but whether or no the internal cancer progressed more rapidly on account of removal of the external disease, I am unable to say. In five, I know that it returned within two years; and of these, four are dead, and one still survives. I also know that three, at least, are cured, the latest having been operated on two years and a half ago; and of four others I have no further report, for I never heard of them after they left my care. The youngest operated on was thirty-six, and the eldest sixty-eight; and the average of all was forty-nine. In nearly three-fourths of the cases, the disease was on the left side. The presence of hard axillary glands did not much influence the mode of treatment; for in no case where they had existed before the operation, did they give any trouble afterwards. Whether they prove that the constitution is affected with the disease, I cannot tell. Of those which were operated on with enlarged axillary glands, two were cured; and of two others I have had no recent account, but they were well when last heard of.

The question of operation in cancerous growths is of so great importance that all records are of value, and I therefore add a tabular notice of these cases.

No. of Case.	Age.	Duration of disease before operation.	Axillary glands affected.	Remarks.
92	40	4 years.	Yes.	Died about three months afterwards of apoplexy, with cancer of brain. Scar sound.
93	67	Breast excised 3 yrs. before.	Yes.	After the removal of a cancerous cicatrix the disease returned, and she died.
94	44	10 years.	No.	The disease returned in the cervical glands, and destroyed her life.
95	50	18 months.	No.	Disease returned in two years, and proved fatal.
96	55	Not recorded.	Yes.	No account of this patient since she went home with the wound healed.
97	68	Not recorded.	No.	The disease returned, and the patient died.
98	39	Not recorded.	No.	I received no record of this patient after she went away cured.
99	56	3 months.	No.	No further record. She went away cured.
100	43	Not recorded.	No.	The disease returned in spots about the chest, but she is still living. The operation was performed in June 1854.
101	64	Not recorded.	No.	No further record of the case. She went away cured.
102	36	2 years.	No.	Cured. Alive now and well. Operation performed June 1856.
103	36	Several years.	No.	The tumour extended high into the axilla. The patient is alive and well now. Operation performed November 1857.
104	45	Not recorded.	No.	Alive and well now. No return of the disease. Operation, December 1857.
105	50	Not recorded.	Yes.	No further account of her. Operation performed August 1859.

In dressing the wound after the operation, I am very careful to tie all the vessels, and to bring the parts into absolute contact with as many pins as may be necessary, with thin strips of adhesive in each interval; a narrow piece of simple dressing along the wound, and the bandage firmly applied over all. By these means the parts are kept in absolute contact and repose for the first twenty-four hours, and a considerable amount of union by the first intention is obtained; and even if the cavity does not become obliterated at once, by keeping the pins *in situ*, and letting the fluid contents ooze out of the lower part of the incision, an open sore is prevented. I always see my operation

cases once or twice within the first twenty-four hours; and, if necessary, cut through the bandages, whenever they are tight or oppressive.

It is important to bear in mind a practical lesson taught by some of these cases and other similar ones; namely, that after the removal of a cancerous tumour, the scar is frequently very hard for a considerable time; and that the induration gradually melts away in most instances, being due to simple thickening, and not to any specific deposit.

At the Bristol Royal Infirmary, in the after treatment of these cases, and, indeed, of all cases where severe operations have been performed, as amputation, excision, or the removal of large tumours, particularly if they have been accompanied with the loss of blood, we have been for a long time in the habit of giving our patients, as soon as possible, good diet, with meat and a little stimulus, and opium when requisite; and sometimes it has appeared necessary to give stimulants very freely; and the system is, doubtless, in this way more quickly lifted out of the depressed state in which the shock of a severe cutting operation has placed it, and the recoveries are more satisfactory; and I may add, that the plan of giving support freely in these cases was the custom here long before the date of that famous letter which appeared some years ago, in large type, in the *Times* newspaper, in which a member of the Council of the Royal College of Surgeons addressed the editor, and told him how he treated the patients under his care, particularly his operation cases, with wine and good things; and how his success was much better than that of his neighbours, who did not advance with the times, but stuck to the old routine. This bold letter, with the help of the large circulation of the *Times*, undoubtedly answered the purpose of a productive advertisement, as it deserved, for it was on a larger scale and more cleverly done than the paragraphs alluding to Moses' clothes-mart and Rowland's kalydor; but if the writer had been practising in the provinces, or if he had been a man of smaller note in the metropolis, and not connected with a large hospital and the Royal College, I think he would properly have been called to account for his epistle.

[*To be continued.*]

OBSERVATIONS ON THE TREATMENT OF ASTHMA.

By T. L. PRIDHAM, Esq., Surgeon, Bideford, North Devon.

[*Continued from p. 760.*]

CASE XII. The case I have now to record, is that of a gentleman in Gloucestershire, who during the winter months whilst he has almost the daily enjoyment of hunting with the Duke of Beaufort's hounds, is tolerably free from an attack; but, should be then indulge in a full meal with more than his ordinary supply of wine, he is sure to feel distress in his breathing in consequence. He is an active energetic man; and, I am told, that when with the hounds, he is one of the first and foremost. Hunting appears to have been his great delight; and, being a man of large fortune, he spares no expense in being well mounted. He has other occupations, however, which require the exercise of great mental powers. In fact, he may be considered a fair specimen of those energetic persons so often the subjects of this distressing complaint.

He first visited me on the 8th July last year, at a time when his complaint was most distressing. His age was 50; his weight, eight stone four pounds. He had been subject to asthma twenty-five years; it came on when he was borne down by anxiety of mind and over-exertion. His chest was well formed, though rather dull on percussion on the left side. The pulse was 80; the heart's action normal; the tongue chapped and coated; the stomach was distended after eating a full meal, which is a sure indication of an attack. He reclined in bed when free from asthma. He expectorated largely, which procured relief. At the close of an attack, he had a large flow of urine, which deposited a thick pink sediment. The bowels were irregular in their action.

I at once placed him under the strict dietary and sedative system, which had been so successful in former cases, directing the bowels to be strictly attended to by means of mild aperients or an enema.

On July 20th, my patient paid me another visit, and reported that he slept well all night; and since the commencement of my treatment, had not had the slightest return of asthma. He said that he felt assured that it was the only plan which he had ever tried which afforded him decided relief.

The next account of my patient which I received was, that he was hunting the native forest deer on Exmoor, facing the most inclement weather with impunity, and without any return of his complaint. After a time, he became regardless of the rules prescribed as to diet and regularity; and he fully admitted that he was paying the penalty of his imprudence—asthma, in a mitigated form, having returned upon him. In a letter I received from him a few days since, he says he was then adhering to rule; and was in the enjoyment of comparative health.

I have now given the history and treatment of twelve cases of dyspeptic asthma, which I have chosen indiscriminately from a great number in my note-book. All these cases occurred amongst males, who by far form the greater proportion of cases when compared with females. This may be accounted for in dyspeptic asthma, in a great measure, I think, from the greater temptations and less inclination to resist in males, the imprudences of indigestible food and the luxuries of life, both as regards eating as well as drinking.

I shall now proceed to record two or three cases of dyspeptic asthma in females, which, I think, will be read with interest.

CASE XIII. This is a case of a lady who resides in the north-east of England, who wrote to me on December 19th, 1856, as follows:—"Having heard from a gentleman in this neighbourhood that you have treated him for asthma successfully, I am induced to write and ask your advice under similar circumstances for myself. It would probably be more desirable that I should have a personal interview with you; but this would not be possible for me at the present season to accomplish; therefore I will explain by letter, as well as I am able, what it may be chiefly necessary for you to know as regards my case. I am now 41 years of age, and have been a very great sufferer from asthma for twenty years. During this time, I have tried frequent and considerable change of climate; and I need scarcely say, many different remedies, without, however, much relief, or permanent good, in any instance. The attacks recur frequently, at intervals of not above ten days, or a fortnight, though rather less frequent in the early part of the year. They commence with great difficulty of breathing, which lasts for several days, and is still more distressing at night, when the only posture possible is leaning forward on some bench in bed, generally for several nights together. The only things relied on for any relief are smoking stramonium, inhaled by holding my head over a small chafing-dish. I have also inhaled chloroform with some relief. These remedies appear to soothe and mitigate the severity of the paroxysms, though I have not thought they ever shorten the attack; after some days, the severity of the attack subsides, and then cough, with much expectoration, comes on, and I am relieved, but feel much weakened and reduced. I have reason to believe that the cough and expectoration is not so much the cause as the effort of nature to *get rid of the disease;* but of this, you will be a better judge than myself. I ought to add, that I have been assured by several medical men that there is in my case no organic disease. And I fully believe this, from the circumstance of my enjoying complete freedom from any pain or uneasiness in the brief intervals between the attacks, the only discomfort remaining, arising from the debility they occasion. I am never able to take much exercise; and in the winter months, I am quite a prisoner. I generally take for my food what is provided for the family, when I am able to eat."

This communication is highly interesting, inasmuch as, without any opinion of mine, the strong belief and conviction of the patient was that the disease, of which she was the sufferer, went through certain stages, and was at length thrown off from the circulation by the medium of the lungs—an opinion which I have given in a former paper, and of which the more I see of dyspeptic asthma, the more I am convinced.

After a few letters had passed between myself and my correspondent, it was ultimately resolved that no *specific* treatment should be attempted, until the season would admit of her coming to Bideford, in order to give my plan the best chance of succeeding. Accordingly, on May 1st, 1857, she, in company with some of her family, accomplished the journey; and her history, as regards her disease, is so interesting, and it bears so completely on the opinions I have advanced, that I hope I shall not be considered digressing from my subject, if I give a detailed statement of some of the incidents connected with her history.

In addition to what has been before stated, she told me she had consulted many eminent men in London and elsewhere, who had treated her case, but without success; and that the poor consolation was given her, that she must make up her

mind to a life of suffering, as no known remedy would reach her disease. Her frame was much emaciated; her body bent forward; the eyes were large and protruding; the pulse 70; the lungs were emphysematous; the tongue was slightly coated, with fissures in it; the stomach was distended, particularly after eating. The urine was loaded with lithates after an attack; at other times pale, and in large quantities. The bowels were irregular, but their secretions were not very unhealthy. Notwithstanding the sufferings she had endured for twenty years, there was evidence of a highly educated and well stored mind; and from the interesting history which I am about to relate, it is evident she is gifted with energy, resolution, and courage, in no ordinary degree.

As I before stated, she had tried all available means, both as to climate and treatment in this country, without relief; she therefore made up her mind to cross the seas, and visit Australia; solely with the hope of restoration to health. Having relations in Sydney, she undertook the voyage to reside amongst them for a season. She suffered much on the way to this distant land; nor did she derive the benefit which she expected, as, with the exception of a short stay on the Blue Mountains, during which time her sufferings were mitigated, her distressing symptoms never left her, and she made up her mind to return to her home and country, with the melancholy prospect of enduring a life of suffering, for she felt now that her case was hopeless. Fresh troubles were at hand; as, during the voyage home the vessel sprung a leak, which defied every effort of the crew, so that each day told them they were so much the nearer a watery grave if they could not make some land before the ship went down. In this forlorn state of things she counselled the captain and crew to take to their boats. The captain was sick and ill from fatigue and anxiety, and could do little or nothing, so that it appeared the fate of the crew was sealed; but to the astonishment of all, this courageous and gifted woman assured them that by her knowledge of navigation and the use of nautical instruments she would steer the open boat to the island of Madagascar, which was at that time about two hundred miles away. With this hope they all embarked in the three ship's boats. The captain was lowered into first boat, his wife and daughter followed, and then the lady with her servant; they took with them three or four picked men of the crew, *the lady* taking the charge of the compass. Four days and nights they were exposed to tempestuous weather, at last land was declared to be in sight; and so true was the course taken that it proved to be the island before named. But why this digression? it may be asked. It is simply to record that during four perilous days not the slightest evidence of an attack of asthma made its appearance. This may be attributed to the small amount of food taken into the stomach, for the lady subsisted entirely during the time on biscuits and weak brandy and water; in fact, the stomach had but little to do, and hence the freedom from suffering which a good Providence provided for her. I mention this fact as material evidence in favour of the theory which I have ventured to advance. I will now, from the interest which must be felt for the result of this lady's case, pursue its history in connection with the peculiar circumstances under which she was placed.

Having reached the island of Madagascar, more dead than alive from fatigue, exposure, and privation, they were assailed by a large number of ferocious savages of the Malagasy tribe, with evident intent to murder them all; so that the wretched crew were of necessity obliged to put to sea again, and make for Port Dauphin, which was according to calculation about seventy miles distant, where they hoped to find a more civilized race. This they happily accomplished, and were treated with kindness, hospitality, and the greatest regard to the delicacy of their feelings. With this tribe the party remained just three months, hoping anxiously for some passing vessel to convey them to their native home and friends, by whom they had been mourned as lost in the perils of the sea. I need scarcely remark, that during their stay on the island the sufferings of the lady in question were most intense, greatly owing, no doubt, to the quality of food on which she was obliged to subsist. I have given but a brief account of what befell the crew of the *Driade*, which has been published in a little volume written by the captain's daughter, from which interesting publication I quote the following passage, which speaks of the lady in question:—"The delicate one for whom we feared so much was wonderfully supported, and *spared sufferings* which sometimes not the greatest care and skill could alleviate."

For fifteen years after this eventful voyage did the lady in question, to use her own words, "suffer a life of martyrdom." This brings the time down to that in which I first saw her, on the May 1st, 1857. Her appearance and symptoms at that time I have already described.

I hesitated not at once to place her on the strict sedative and dietary system, commencing with three grains of the extract of conium and one grain of the extract of hyoscyamus, four times a day, attending to the state and regularity of the bowels, and exact punctuality as to meals. I extract the following particulars from my note-book:

"May 9th. All distressing symptoms are gradually subsiding; attends strictly to the prescribed rules. May 16th. Continues free from suffering, enjoys her food, sleeps all night; no signs whatever of her distressing disease. May 23rd. Continues free from an attack of asthma; looks more healthy; and is able to walk three or four miles without difficulty; continues her plan most regularly. May 30th. Going on remarkably well and in high spirits; says she has not been so well for twenty years."

About this time my patient left this place to return home, staying some days with her brother in the neighbourhood of London. On leaving London, she wrote to me on the 14th July as follows:—"I think you may, perhaps, begin to feel some little wish by this time to learn how your patient is going on, and whether the beneficial effects of your prescriptions continue to be felt as much as while I was in Devonshire; I am no less desirous to assure you how *entirely* this has hitherto been the case; and how grateful I feel to the Giver of all good, and secondarily to yourself, every morning when I wake, for the health and comfort I am permitted to enjoy. You told me witchcraft had been extinguished in Bideford many years ago; but I must think something of the old spirit still lingers in the vicinity of your dwelling. I only hope you will never be so uncanny as to withdraw the spells which seem to have charmed back for me a blessing I had believed not to be hoped for again. My brothers are delighted to see me so well, and can hardly believe it is the same poor panting sister they have for so long a time petted and pitied. Indeed, I am myself sometimes tempted to doubt my own identity, never remembering to have enjoyed myself as I now do for at least twenty years. Nothing surprises me more than the impunity with which I seem now able to encounter even considerable fatigue and exposure to skiey influences that would once have certainly brought on a paroxysm of my complaint; long drives, late hours, London sights, Crystal Palace Concerts, etc., have been a severer test than might have been wished. I am more and more encouraged to *adhere strictly* as ever to the prescribed treatment." On August 20th, having reached her home, she wrote—"Were I to write to you as often as gratitude suggested, I believe it would be after every good night's repose procured for me by your able treatment. I am at last quietly at home again, the pleasure unmarred to the last by my old enemy—the asthma; I may say, *quite* unmarred, for though I felt once or twice a little sensitiveness when any considerable change of temperature occurred, it was not more than to induce a little extra care,—a salutary warning that I must not fancy myself quite invulnerable, and I feel that it is true what you told me on leaving Bideford, "that I have recovery very much in my own hands."

On August 4th my patient writes: "You will like to hear how I am going on; I cannot give you a more convincing proof that I am still well and comfortable, living quite a butterfly life amongst my many friends, whose society I now so thoroughly enjoy." For more than two years, from the date of the last communication, I continued to receive satisfactory accounts from my patient, who occasionally writes to me for advice when she appears to require it.

Case xiv. The next case which I have to record is that of a lady, aged 70, who placed herself under my medical care, owing to the benefit which an operative in the town where she resided, in the south of Devon, had derived after a month's treatment. The lady in question had been afflicted for thirty years, and frequently kept her bed for months together whilst suffering severely; and during one of these periods she resolved on being removed to a railroad carriage, which brought her to Bideford on February 20th, 1858. She was a person of spare habit of body, with all the distinguishing marks of a confirmed asthmatic patient, which doubtless the luxuries and good things of life had materially assisted to perpetuate; for she admitted that she ate largely every day and at every meal, whenever her sufferings would permit of her taking food. She also admitted that she never took her food with a true relish, although the large amount of daily expectoration appeared to her to demand a continual supply of nourishment. Her tongue was coated, and stomach distended, which, as she informed me, appeared greatly to increase her sufferings, particu-

larly after a full meal; pulse 70; heart and lungs in a tolerably normal state. She could seldom lie down in bed: but her sufferings, from her description, were never of that distressing character which I have described in former cases; still her state was such as to be constantly irksome to her: the urine had constantly a pink deposit in it. After a few doses of blue pill and extract of henbane, and a saline aperient or two, I commenced the sedative and dietary system. She could not at first be convinced that she should not soon be starved by the comparatively small amount of food allowed. At the end of a fortnight all her distressing symptoms had left her, and at the end of a month she went home perfectly free from complaint, to the no small astonishment of her friends, and I continued for a few weeks to receive a satisfactory account from my patient. But a month had scarcely elapsed before I was requested to visit her, when I found that her symptoms had returned with equal severity. I also learned that she had indulged her appetite, if possible, to a greater extent than prior to my attendance upon her; she said that it had been *so ravenous* that all the powers of her mind could not induce her to control it, not even by gradually increasing the amount of nourishment prescribed for her daily consumption, and I plainly saw that my advice would be of little avail. And I understand it has been proved to be so; for she prefers, as I am told, to suffer great inconvenience to adopting even a moderate control over her fondness for eating and drinking the very best of everything this world can afford. She is one of those who say the remedy is even worse than the disease: there is only this excuse for such patients, which is, that the disease does not at any time assume the severest form.

Case xv. This is the case of a lady in whom the disease of dyspeptic asthma first made its appearance in the coldest regions of Russia, just ten years prior to her consulting me. The history which she gave of its origin was simply this. Having experienced some considerable anxiety and distress of mind by which her whole system was greatly lowered and her digestion impaired, she was suddenly seized, whilst exposed to the dust and flock from a bed which was at the time being made up in her room, with a most severe fit of asthma, which lasted for several hours. These attacks returned at short intervals during her residence in Russia. She was in hopes, on her return to her native country, that her health would be restored; on the contrary, nothing appeared to relieve her, although she sought every assistance and remedy that could be procured. On September 7th, 1858, she came to this place, and was under my care for several months; and although it cannot be said she was entirely free from asthma during that time, she passed the winter in *comparative* ease and comfort, always admitting that whenever symptoms of her complaint appeared it was from acts of her own imprudence in eating forbidden food; but certainly the few paroxysms in this case, when they did come, were more severe than anything I ever saw in the shape of human suffering,—her agonized countenance, her cries for relief and assistance, were most distressing to hear. These attacks were, however, rare in comparison to what she had formerly experienced, and were met by means of the usual antispasmodic remedies, such as chloroform, ether, smoking stramonium, and more particularly the small French cigarettes, which appeared to have a considerable effect, being composed chiefly of stramonium leaves, which, from her own account, greatly shortened the duration of her sufferings. I may here remark, that this has been the only case wherein I was under the necessity of having recourse to palliatives to lessen its severity, or shorten the period of an attack of dyspeptic asthma, which did not at first entirely yield to the strict sedative and dietary system. An opinion may, however, be formed of its success from a letter which my patient addressed to me on the 5th of the following March, from which I make this extract:—

"In offering to give an opinion on your treatment of my case, I think few can speak more fully than myself of the efficacy of your adopted means as being instrumental in the alleviation of this merciless malady for myself, as well as others whom I have heard of. It will be a life-long matter of thankfulness and rejoicing that we were induced to seek your advice, for after ten years acute suffering, and for the past seven—being from the month of October to that of May or June—shut up in one room, I have during the past winter enjoyed comparative comfort and ease, and, up to the middle of January when I had an attack of influenza, I was taking daily outdoor exercise in almost every degree of temperature and sort of weather. I could describe my previous sufferings, but they are almost too distressing to relate; suffice it to say, then, my attacks frequently became spasmodic, and seemed for hours, even for days at times, to threaten the annihilation of life, and these terrible paroxysms I had been accustomed to endure every fortnight ere I consulted you, till I became a mere skeleton, unequal to any fatigue, and without the power of walking. I cannot boast now of being robust, yet free from any acute suffering, my energy and comparative strength has returned, and, as I before said, my livelong gratitude will ever be due to you."

As this case came again under my care the following winter, I shall have occasion to allude to it when speaking of *atmospheric influences as the exciting cause* of this most capricious disease, which will be part of the subject of my next paper.

I trust the number of cases which I have now reported of dyspeptic asthma will be sufficient to induce my professional brethren to bring further evidence to bear upon the treatment of a disease, which is generally looked on as one which admits of but little advantage to be derived from medical aid, although one of the most distressing and painful to which suffering humanity is heir. During the publication of my papers, it has been my pleasure already to receive from men of the highest standing in our profession assurances of their opinion of the reasonableness of the arguments, and my ideas on the subject; and not a few have borne testimony of its efficacy by their successful treatment of some of the most inveterate cases of what I have ventured to call dyspeptic asthma.

[*To be continued.*]

Transactions of Branches.

LANCASHIRE AND CHESHIRE BRANCH.

NOTES ON THE TREATMENT OF DIABETES.

By William Roberts, M.D.Lond., Physician to the Manchester Royal Infirmary.

[*Concluded from page* 880.]

Case iv. A fourth case has recently come under my care. D. B., a warehouse porter, aged 48, has been diabetic for four years. The disease was caused by mental anxiety, and at first ran a very rapid course. In three months he had to relinquish his work, from weakness. The complaint was then detected, and his medical attendant put him on a restricted diet; the use of potatoes was forbidden, and bran cakes were substituted for ordinary bread; cabbage was also allowed for dinner. A speedy change for the better followed this treatment. The urine fell from eighteen pints to three and five pints; and in five months he gained fourteen pounds in weight. His resources failing, from inability to follow his employment, he was not able to procure a diet suitable to his condition. He could no longer afford to manufacture the bran cakes according to the formula of Dr. Camplin; and yet such was his resolution that, in order to avoid the use of common bread, which aggravated his complaint, he was in the habit of making his breakfast and tea off simple bran, washed and dried in an oven, mollified with a little butter or broiled bacon; and this prodigal son's fare he washed down with a cup of weak tea or coffee. For two years and eight months this poor fellow dragged on existence in this fashion, courageously fighting his malady; and maintaining, not unsuccessfully, the unequal battle against disease and poverty. Nothing but the certain conviction that the forbidden articles were poisons to him could have sustained his resolution against such heavy odds. His testimony on this head is worthy of audience, both from his long experience of the complaint, and on account of the firmness and veracity of his character. He states that, when obliged by unavoidable circumstances to eke out his subsistence by ordinary bread, he perceives an immediate increase of thirst and clammy dryness of the mouth, more frequent calls to void urine, together with a tendency to drowsiness and failing strength (for all this time he has worked, under an indulgent master, two, three, or four days a week, according to his ability). His report on potatoes is still more unfavourable. "Half a potato disables me"—such is his phrase. Even milk, except in sparing proportion, disagrees with him.

Under these circumstances, I recommended him to persevere in his abstinence from amylaceous food with still greater strictness, but to avail himself more largely of lettuce, cabbage, water-cresses, and spring onions; I also ordered him a grain of opium three times a day. In addition, to relieve his craving

for bread, and offer some variation in the wretched substitute which alone was within his power to get, he was directed to use once a day a slice of ordinary bread toasted in the oven until it was thoroughly browned. I had found that, when bread is torrefied in an oven until it has assumed an intense brown or nearly black colour, a great portion of the starch is destroyed, and there remains a toasted, almost charred remnant, which, bad as it seems, is an agreeable change to the diabetic subject from the everlasting use of bran cakes.

A very sensible amendment set in, as a result of these directions. The urine, which had ranged from five to seven pints, sank to three; and the cheerfulness and sense of health returned in an unwonted degree.

For the three weeks that he has been under my observation, the condition of the urine has been as follows:—Average daily discharge, 66 oz.; average density, 1031; average daily excretion of sugar, 1404 grains.

This man offers an example of an individual who has persevered with the restricted diet for four years, and at the end of that time the abstinent treatment is as powerful as ever in diminishing the quantity of urine, in reducing the discharge of sugar, and in promoting the general well-being. The abstinence so resolutely maintained failed to produce more satisfactory results, solely because the complementary part of the treatment—an abundant supply of animal food, and of a suitable substitute for bread—could not be carried out, from want of pecuniary means.

The impression that has grown on my mind in watching these cases, and in reading what others have observed, is, that starch is so deleterious to the diabetic patient, that it should be regarded as more or less a poison to him. No well attested success in treatment has been obtained, unless restraint was put upon its use; and the great desideratum in the therapeutics of diabetes seems to be a greater number of articles that can be substituted for bread. Deprivation of potatoes is no great penalty, green vegetables being a suitable and palatable substitute; but abstinence from bread is a hard trial to all, and altogether beyond the power of many. Two invaluable substitutes we already possess in Bouchardat's gluten bread and Camplin's bran cakes. The former contains 26 per cent. of starch, and must therefore be prescribed sparingly. As prepared in France, and sold in this country by Van Abbott, it is an agreeable article of diet; yet one of my patients preferred the bran cakes. The little boy, however, could do nothing with the bran cakes, while Bouchardat's bread satisfied him. It has occurred to me that a superior bread to either could be produced by the combination of gluten and ground bran.

Much discredit has been thrown on the dietetic treatment by a slovenly and incomplete manner of carrying it out. It requires most vigilant watching to keep guard against the admission of the forbidden articles. The patient's own craving for them is often too much for his resolution, and most artful deceits are practised on the medical attendant. This is especially the case at the beginning of the treatment. After awhile, the patient perceives from his own observations the importance of abstaining, and the desire diminishes very notably after the lapse of some weeks. Amylaceous compounds too are often unwittingly administered by the attendants. Starchy matter is never absent from the cook's hand; it enters, in one guise or other, into almost every dish. In a case under my care, from whose diet every particle of starch, as was thought, was excluded, I observed a constant partiality for fish; and, happening one day to come in as my patient sat down to dinner, I discovered that the real attraction lay much less in the fish than in an immense dish of white sauce which accompanied it.

Then there arises the other difficulty—the rejection by the stomach of the restricted diet. This difficulty is perhaps made too much of. A skilful selection and frequent change of articles of diet usually suffices to reconcile the digestive organs. The field of selection among admissible articles is so wide that, in private practice, the practitioner's resources are inexhaustible. Among hospital patients, however, the embarrassments on this score are very serious.

With regard to the specific effects of drugs in this disease, good evidence of their use has yet to be advanced. I have myself given full trial to opium, both in large and small doses; and to alkalies. The latter I have invariably found perfectly useless. Opium is unquestionably of great value. If no restriction, or only a partial restriction, be put on the diet, opium in doses of from six to twenty grains a day has always had the power, in my hands, of reducing the flow of urine to about one-half; that is to say, of bringing it down to five or eight pints; and this without increasing its density. Nevertheless, it has appeared to me that, notwithstanding this amelioration in the state of the urine, the downward progress of the disease was not arrested; and I am disposed to attribute the effect of the drug more to its deadening influence on the appetite, than to a specific power of decreasing the sugar-formation. When opium is used with a restricted diet, it certainly has not exhibited the least power of diminishing the flow of urine or the excretion of sugar. Its great value is derived from its power of allaying the dolorous sensations and the irritability which constantly torment diabetic patients.

Pepsine and rennet have been spoken of of late, and in such terms of confidence as to raise hopes that are not likely to be realised. The most remarkable instances of treatment by rennet are those related by Dr. Jas. Gray in the fourth volume of the *Glasgow Medical Journal*. Dr. Gray there states that, "of the twenty-eight persons treated, *seven* have recovered; that is to say, they have regained the weight lost; their urine was diminished in quantity to about the usual standard, and contained no sugar." This is an example of most rare success, and it is to be regretted that the cases are not reported with the exactitude and detail desirable on such debateable ground. In them all, a rigid adherence to animal diet and bran bread was insisted upon; and it is quite open to conjecture how far the amendment in each case was due to the restricted diet, and how far to the rennet. Dr. Nelson of Birmingham (*Lancet*, 1855 and 1857) also extols the same remedy. His cases do not seem to have been severe ones; and in one of them the diet was to consist of "eggs and oysters". The reports are much more imperfect than those of Dr. Gray.

On the other hand, two exact observations have been made by Dr. Parkes (Garrod's Gulstonian Lectures, British Medical Journal, May 16th, 1857) and Professor Leubuscher of Jena (Virchow's *Archiv*, Band 18, p. 119) on the effect of pepsine in diabetes; and in neither instance was there any diminution of sugar.

Since the reading of the present paper, I have tried rennet in the fourth of the above described cases. The rennet was made in the manner recommended by Dr. Gray, and given in doses of two tablespoonsful three times a day. The patient took it for more than two months, associated with a rigidly restricted diet. During that period he improved, and gained five pounds in weight. But he was improving just as rapidly before he began the rennet; and the daily excretion of sugar has not in the least diminished during its use.

I would speak with great reserve of the saccharine treatment of diabetes, because of my own want of experience in it. The evidence for and against it is conflicting. That it increases the amount of sugar in the urine, is unquestionable. I am witness of that myself. My patient E. H., on the day that she took, contrary to orders, four ounces of loaf-sugar and an ounce and a half of treacle toffy, excreted four ounces and a half more sugar than on the previous and subsequent days. The urine also increased fully two pints. The observations of Dr. B. Jones (*Med. Times and Gaz.*, May 1st, 1858) point conclusively to the same belief.

The eccentric Piorry was the first to administer sugar in diabetes, and he conjoined it with abstinence from drink. The result was a diminution in the quantity of urine from twenty or thirty *litres* to two.

Dr. W. Budd (British Medical Journal, Nov. 14th, 1857, and March 13th, 1858; also *Med. Times and Gaz.*, May 22nd, 1858) followed Piorry's lead. To a patient who had been treated without success by the restricted diet, he administered eight ounces of sugar and four ounces of honey daily for five months. A diet of ordinary food (excluding potatoes) was also allowed. On this regimen the patient gained twenty pounds in weight, and the urine fell from about nine pints to five. In a second case, a woman in an advanced stage of diabetes was submitted to the same treatment. She took daily from five to eight ounces of white sugar. In a month she gained ten pounds in weight, and the urine diminished from six pints to four pints and a half. In both cases, the increasing weight was accompanied by subsidence of the chest-symptoms, and by an improved state of the tongue and skin. These two facts are unquestionably very remarkable, and stand in the strongest contradiction to current belief. I would remark, that potatoes were forbidden in both cases; this must be considered an important limitation. Also, that the improvement in the condition of the urine was only very moderate, and does not approach that obtained in the cases detailed in this paper by a restricted diet.

The case published by Dr. Corfe (British Medical Journal,

Feb. 6th, 1858), which is put forth as a notable example of the beneficial result of the saccharine treatment, lies open to the criticism that the good effects were not produced by the sugar administered, but *in spite of it*. This patient was a country tradesman, of dark complexion, evincing the true phosphatic diathesis. (I thought we had heard the last of the phosphatic diathesis.) He was put on a diet of animal food and green vegetables; he was also especially directed—I use Dr. Corfe's own words—"to abstain from bread and all farinaceous food and potatoes"; and an ounce of sugar candy with an ounce of honey were administered daily. On this treatment he improved, and increased in weight by eighteen pounds; and the urine fell to three pints and three-quarters, with a very greatly diminished proportion of sugar. It appears, however, that in spite of the sugar candy, when the patient partook of the forbidden bread and potatoes, he lost weight, and the urine increased and became more saccharine. I have no hesitation in attributing the amendment that took place in this man's condition to the abstention from amylaceous food, and not to the small quantity of sugar and honey which he took. Dr. Corfe displays a strange want of acquaintance with the literature of diabetes in the following sentence, which concludes his paper: "Upon a review of upwards of one hundred cases of diabetes, it has never fallen to my lot to witness such a marked, rapid, and satisfactory improvement, by any line of treatment, as that now under consideration."

The record of cases altogether unfavourable to the saccharine treatment is rather longer than the foregoing, which represents the favourable side of the picture.

Dr. Burd (British Medical Journal, Jan. 2, 1858,) at the Salop Infirmary administered eight ounces of loaf-sugar and eight ounces of honey daily to a woman in an advanced state of diabetes. She became rapidly worse in consequence; and amendment did not take place until the sugar was withdrawn; she having, as he states, "barely escaped immolation on the altar of experiment." The experience of Dr. Sloane (British Medical Journal, May 29, 1858), at the Leicester Infirmary, is scarcely better. He gave half a pound of treacle to a diabetic woman for more than nine weeks, with the effect of adding seven pounds to her weight, of doubling the quantity of urine, and increasing its saccharine impregnation. After the treacle was withdrawn she made much more satisfactory progress.

In two other cases the use of treacle and honey for several weeks was followed by loss of weight, an increase of the urine and diminished strength, without any countervailing advantages.

From a review of these various results, it is clear that the saccharine treatment stands at the present moment sadly in want of friends.

The evidence in favour of the treatment of diabetes by a restricted diet is overwhelmingly greater than that in favour of the saccharine treatment; but yet one is disposed to ask, is cane-sugar so deleterious as we have thought it? May it not turn out true that while grape-sugar and starch—which is forthwith converted into the same—are inadmissible in diabetes, cane-sugar may prove, in certain proportions, not only not hurtful but positively advantageous, as supplying to the economy a substitute for starch, of nearer relation than fat and alcohol—the substitutes recommended by Bouchardat.

In future observations, it would be desirable to exhibit cane-sugar—not treacle, which is a different substance—but at the same time to forbid rigorously all starch, and also grape-sugar.

A Sanatarium at the Cape. A number of skilful artisans and mechanics have been selected from the companies of Royal Engineers at head-quarters, Chatham, with orders to embark at Southampton, on the 5th inst., for the Cape of Good Hope, to assist in the erection of the sanatarium which the Government has decided on establishing at that station for the sick and wounded troops from India and China. The sanatarium is intended to be formed of huts, and will be erected near the locality of Winsberg, about eight miles from Cape Town. Dr. J. R. Taylor, C.B., who has been appointed chief medical officer, has been for some time at the Cape superintending the erection of the various buildings, and organising the medical staff of officers for the new establishment. We are glad to find that the principle of segregation of the sick in huts, as opposed to that of massing them in huge hospitals, is to be adopted. Medical science has long demonstrated the superiority of this system. (*Dublin Hospital Gazette, November* 1.)

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, NOVEMBER 17th, 1860.

CONVALESCENT HOSPITALS.

The condition of the convalescent poor has naturally engaged the attention of an age in which sanitary science has made such gigantic strides; and the establishment within the present century of country convalescent hospitals proves that good air has been to some extent considered as efficacious in curing disease as in preventing it. Nevertheless, it does seem to us that until the present moment the public have been singularly backward in aiding medicine with these invaluable institutions. We may with safety assert that the bad air of hospitals in crowded cities has been answerable for a majority of deaths in all capital operations; whilst in the medical wards, without doubt, hundreds of thousands of pounds, the subscriptions of the charitable, have been squandered in the prolonged support of suffering patients who would in pure air have rapidly recovered. It certainly is singular that we have so long and persistently ignored the sanitary worth of pure air, and gone on trusting to the resources of the drug-stores for the means of accomplishing cures that only awaited the remedial effects of a pure country atmosphere. Not long ago, the wards of St. George's Hospital were haunted with that scourge of hospitals—gangrene. The recovery of a patient from a capital operation was the exception rather than the rule; nevertheless, operating went on as usual; and over the doors of the surgical wards devoted to the more severe cases might have been written, in the words of Dante, "He who enters here, returns no more." The authorities of the establishment were at their wits' ends. How was the evil to be stopped? It was at last suggested that all that was required was to lift the patients into purer air. The convalescent wards were built at the top of the building, and gangrene disappeared! So instructive a lesson should not be lost. If we would save the funds of medical charities, and restore the afflicted as speedily as possible to health, we must by every possible means endeavour to procure them pure air. The article is not to be found in either of the *Pharmacopœias;* but, in the convalescent stage of disease, it is worth all our drugs put together.

The clear mental vision of Miss Nightingale has seized upon this truth with avidity, and she has treated the matter in her own masterly manner in her *Notes upon Nursing*. She says:—

"Change of air is of the very first importance, so soon as the disease has taken a turn. Everybody must have remarked how a person recovering remains sometimes for weeks without making any progress, yet with apparently nothing the matter with him. The change from a ground-floor to an up-stairs ward will sometimes hasten a patient's recovery. The mere

move to what *he* considers the convalescent ward will give him a fillip. Change is essential. He must go to another place, or even only to another room. Then he immediately begins to 'pick up.' This is every-day experience. But with the poor 'change of air' is next to impossible. And people without large experience, and who have never had severe illness themselves to enlighten them, have little idea how large a class there is (and for how long a time) who require an *intermediate place* between hospital and a convalescent institution, where there is *no* nursing. A place with the most careful nursing and every hospital comfort, *together with the country air*, would save many lives from being spent in the union workhouse, many from requiring poor-law relief at all, many from giving birth to unhealthy families, and many premature deaths.

"There are those to whom the subject appears unimportant: such people say, when a sick man is convalescing, he is doing well, and there is an end of it. They never consider that convalescence has its degrees and its course, the same as disease, and that you may have a very long convalescence, instead of a short one, or perhaps no convalescence at all, by simply entertaining the habit of thought 'that there is an end of it.'"

It is within the power of all our City Hospitals to afford convalescent wards removed from the foul effluvia of those in which the sick remain night and day. We have for years advocated the transmutation of our dismal Metropolitan Hospital gardens and airing courts into healthful sanitaria, protected from the inclemency of the weather by sheltering glass, and rendered cheerful and interesting by the addition of flowers and birds. The long corridors of Bethlehem afford examples of these aids to healthy thought and occupation, which have been too long neglected by our hospital governors. Outside of these economical receptacles for the convalescent, we trust to see convalescent establishments in the pure country air rapidly multiplied. That there is a tendency in this direction may be gathered from the splendid bequest of Mr. Morley of £150,000 to St. George's Hospital, for the erection of a convalescent establishment in connexion with it. Miss Murray of Edinburgh has also left upwards of £2,000 per annum for hospital extension of a similar character; and the exertions of Mr. Adshead of Manchester, in favour of establishing an institution of this nature for the Manchester district, testify to the fact that the simple treatment of pure air for our convalescent poor is not only agreed upon, but is rapidly becoming a matter of practice. The rapid increase of the convalescent hospitals already established, and the estimation in which they are held, are guarantees that we cannot go wrong in this direction; there is no question here of special *versus* general hospitals.

It would form an instructive lesson if we could by any means get some statistical returns by which to form a comparison between the time necessary to restore a patient who has entered the convalescent stage of health in a General Hospital, and in a Convalescent Establishment: the gain would, without doubt, be vastly in favour of the latter. The establishment of a station for sick soldiers of the Indian army at the Cape of Good Hope, proves that the Government is quite alive to the value of change of air in the treatment of disease; and we trust that the supporters of British Medical Charities will not neglect to follow its example, and that a branch Convalescent Establishment will, ere long, be considered an indispensable addition to any great urban hospital in the three kingdoms.

THE WEEK.

In the Court of Exchequer, on Wednesday last, there was tried a case bearing on medical registration and the use of titles. An action had been brought before the Middlesex magistrates against the defendent, Hubert E. G. Kelly of Pinner, for assuming the title of Doctor, whereas he was registered as a Member of the Royal College of Surgeons of England and a Licentiate of the Company of Apothecaries. A diploma of M.D. from the University of Erlangen was produced; but it was argued that this did not give the holder the right to call himself "Doctor", unless registered as such. The opinion of the judges of the Court of Exchequer was sought on the questions whether the Medical Act prohibited the use of the title of Doctor of Medicine unless it were registered; and whether the defendant could be said to have "wilfully and falsely" used the title. Mr. Codd, for the appellant (the informant in the action before the magistrates), submitted that the defendant had offended against Section XL of the Medical Act.

"The Lord Chief Baron.—But this gentleman is a member of the College of Surgeons, and a licentiate of the Apothecaries' Company.

"Mr. Codd.—Yes; but he is not a doctor of medicine, and the act provides for all classes of the medical profession.

"The Lord Chief Baron.—But he is registered.

"Mr. Codd.—Not *qua* doctor of medicine.

"The Lord Chief Baron.—Suppose he was a doctor of laws, and afterwards practised medicine, and was duly registered, could he not call himself doctor? This act is to prevent any man practising medicine who is not registered. I do not think there is the slightest reason for saying that he has been guilty of false pretences.

"Their Lordships then, without calling on Mr. Robinson, the counsel, for the respondent, dismissed the appeal with costs."

In the Court of Queen's Bench, on Monday last, Mr. Lush moved for a rule calling upon the Branch Council for England of the General Council for Medical Education and Registration of the United Kingdom to show cause why a mandamus should not issue commanding them to show cause why the name of the applicant, Mr. Thomas Golden, should not be entered on the registry. It appeared that Mr. Golden was a practitioner previous to the 1st of August, 1815; that he was bound apprentice on the 20th of August, 1810, and served until he was twenty-one years of age. The applicant swore that he believed he was born upon the 13th of October, 1793; but no registry of his birth could be discovered. That being so, the Council had refused to register Mr. Golden, because they had reason to suspect he was not of age on the 1st of August, 1815. A rule *nisi* was granted.

At a meeting of the Council of the Royal College of Surgeons of England, held on November 9th, it was unanimously resolved that two hundred guineas be devoted to the purchase of a piece of plate, to be presented to Mr. Edmund Belfour, in acknowledgment of his unvarying zeal, fidelity, and honourable conduct, and of the invaluable services he has rendered to the institution in all its departments during the fifty years, now completed, of his tenure of office as Secretary of the College. There can be but very few existing Members or Fellows of the College who have not had to do with Mr. Belfour; and we are sure that all will cordially approve the step taken by the Council, and bear testimony to the merits of their excellent Secretary.

The students of the Meath Hospital, Dublin, have recently presented to Dr. W. H. Porter, Professor of Surgery in the Royal College of Surgeons of Ireland, and Surgeon to the above named Hospital, a numerously signed address, congratulating him on his recovery from a severe accident which befell him some time ago, as well as on his appointment as Representative of the Irish College of Surgeons in the Medical Council. Professor Porter has heartily acknowledged the greeting with which he has been met after a prolonged absence, and concludes by stating that the efforts of the medical staff of the Hospital have owed their success to the good conduct of the students. Such expressions of mutual good-will between teachers and pupils are always pleasing.

Association Intelligence.

BRANCH MEETING TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
Bath and Bristol. [Quarterly Meeting.]	York House, Bath.	Thurs., Nov. 29th, 7 P.M.

MEDICAL BENEVOLENT FUND.

At meetings of the Committee, held on October 30th and 31st, at 11, New Burlington Street, William Newnham, Esq., V.P., in the Chair, there were twenty-nine applications for pecuniary assistance from distressed medical men, their widows or orphans. Of the twenty-nine cases, twenty-seven were voted grants of money—one receiving £20; two receiving £15 each; eleven receiving £10 each; and thirteen receiving £5 each. The total sum voted being £225.

The sum of £464:17 was ordered to be added to the Annuity Fund in bank stock—the sum now given in annuities being £268.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, November 12th, 1860.

A. B. Garrod, M.D., F.R.S., President, in the Chair.

CLINICAL DISCUSSION.

The Case of M. Groux. M. Groux gave a demonstration of his case. The chief points which he adduced were, that the upper pulsating tumour in his chest was the aorta; the lower one the right auricle. He illustrated this by various experiments. First, he shewed, by the sphygmoscope, that the pulsation of the upper tumour and of the ventricle were synchronous; secondly, that the pulsation of the lower tumour and of the ventricle were alternate; thirdly, that the pulsation of the upper tumour and of the auricle were also alternate; fourthly, he exhibited the pulsation of the upper tumour and the ventricle as synchronous, but alternate with that of the lower tumour. A very ingenious apparatus was then shewn, by which the alternate actions of the upper and lower tumours, and of the lower tumour and the ventricle, were demonstrated by the ringing of bells: the pulsations being communicated to a tube in such way as to set a galvanic machine in motion.

M. Groux gave further an opinion, that the sounds of the heart were shewn by his case to be as follows. The first sound, he argued, was compound, being made up of three elements: first, closure and tension of the auriculo-ventricular valve; secondly, muscular contraction; thirdly, rush of blood into the pulmonary artery and aorta. The second sound was simple, consisting in the closure of the semilunar valves. He also directed attention to a point where, he said, a third sound was heard, which consisted in reduplication of the second sound. This latter fact was examined into by Drs. Halford, Salter, and Richardson. Dr. Halford failed entirely to detect any third sound. Dr. Salter expressed himself uncertain on the point; and said that, if it occurred, it was certainly not regular in its occurrence. Dr. Richardson entirely failed to hear a reduplication; and, during his examination, M. Groux himself, listening at the same time, admitted that the third sound was not present on that occasion. Various other experiments having been shewn, such as producing temporary arrest of the action of the heart, and the resonant condition of the chest during expiration, the demonstration was closed.

Dr. Richardson said that it would be impossible to dismiss this case at the present stage, and suggested an adjournment.

Dr. Routh moved, and Mr. Bishop seconded, that a committee be appointed to carry out a careful investigation of the phenomena presented. The motion was carried.

On the proposal of Dr. Routh, seconded by Mr. Rogers-Harrison, the following committee was nominated:—Dr. Halford, Dr. Hyde Salter, Dr. Richardson, Dr. Garrod, Dr. Leared, and Dr. Fuller; with directions to bring up their report at the next clinical meeting.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, November 7th, 1860.

Robert Barnes, M.D., Vice-President, in the Chair.

The names of the following candidates for admission into the Society were read:—Dr. Charles Henry Payne, Dr. Lawrence Spencer, Dr. George Ritchie, and Mr. John Smith Crosland Richards. These gentlemen will be balloted for at the next meeting, on December 5th.

Case of Labour after Operations for the Cure of Rupture of the Perinæum, involving to a considerable extent the Rectum. By Richard Hodges, M.D. This case was brought forward to show how adequate the powers of nature are to accomplish a result even under the most unfavourable circumstances. Premature labour was suggested, but not adopted; and the issue proved the wisdom of the choice. The labour was not prolonged beyond four or five hours; the head of the child presented; and the cicatrices yielded to its advance, chloroform being given to further relaxation, and to relieve pain. A lateral tear, requiring a suture, occurred, which speedily united; but the central cicatrix, the result of the operations, did not give way.

Case of Spontaneous Evolution of the Fœtus in Utero. By Richard Hodges, M.D. In the case related, the head was the original presenting part; but, by the efforts of the uterus, the breech end of the child was so acted upon as to be depressed and forced into the pelvis, the head being changed for the feet. At the first examintion, the head was distinctly recognised by its firm, round, and unyielding nature, and by the hair on the scalp; but at the second examination, the feet were perceived in the upper part of the vagina, just through the os uteri, thus affording an example of the actual revolution of the child in the womb.

Case of Vaccination, where the Period of Incubation was one year. By Richard Hodges, M.D. In May 1854, Dr. Hodges vaccinated a little boy three years of age; but the arm did not rise within the usual period. In the May following, however, a vesicle spontaneously formed with an areola on the seventh and eighth days, gradually declining on the eleventh or twelfth; a permanent cicatrix, marked by pits, remained, giving evidence of the genuine vaccine disease.

Case of Ovarian Tumour, weighing seventy-six ounces and a half, in a Girl aged twelve years and a half, terminating life suddenly by Asphyxia. By R. Fawcett Battye, L.R.C.P. Ed. The title of this communication sufficiently explains the nature of the case. The cause of death was due to asphyxia, arising from the unyielding nature of the abdominal walls not allowing the tumour to present itself anteriorly. Consequently, the pressure was directed upwards, and pushed an enlarged liver, so that it encroached upon the right lung.

Malignant Disease of the Ovary. By Graily Hewitt, M.D. The patient, aged 19, had never menstruated. She was admitted into St. Mary's Hospital, under the care of Dr. Tyler Smith, and was subsequently, in that gentleman's absence, under Dr. Graily Hewitt. She had been ill for six months, and a growth had gradually extended upwards from the pelvis to above the umbilicus. She died, gradually exhausted, a month after admission. The abdomen was much distended with fluid; and a large tumour, weighing upwards of eight pounds, a portion of which was exhibited, was found growing from the situation of the right ovary, adherent to the walls of the pelvis, and nearly filling its cavity. It was of a cancerous nature. From first to last the disease had existed (apparently at least) not more than about six months.

Double Battledore Placenta with a Single Umbilical Cord, connected with one Child. By J. HALL DAVIS, M.D. This placenta was removed after an easy labour at full term, the child, a male, having been born alive, and of the average size. On one of the masses having passed through the vulva, Dr. DAVIS examined to ascertain the reason why the cord was still fixed internally, when he discovered a second placental body in the upper part of the vagina.

Dr. PRIESTLEY showed the casts of some heads which had been broken up by Dr. Simpson's operation of Cranioclasm.

AN INQUIRY INTO THE CORRECTNESS OF THE DOCTRINE OF WILLIAM HUNTER IN REGARD TO RETROVERSION OR RETROFLEXION OF THE GRAVID UTERUS. BY W. TYLER SMITH, M.D.

After giving an account of the way in which our knowledge of this displacement of the uterus has been acquired, and the opinions of ancient and modern authors, but particularly of William Hunter, upon this subject, Dr. TYLER SMITH proceeded to lay down his own views, and especially to dispute the Hunterian doctrine that the chief and exciting cause of complete retroversion is retention of urine and distension of the bladder. He then went on to say: "My own attention became specially directed to the subject of retroversion of the gravid uterus in the following manner:—I attended a lady—a patient of Sir Ranald Martin—who, in the unimpregnated state, suffered from complete retroversion or retroflexion. She left this country, with the uterus retroverted, to join her husband in India. She soon became pregnant, and went the full time. The question suggested itself to me, What was the condition of the uterus in this case, after impregnation occurred? And I resolved to take any opportunities which might occur to me of answering it. I have now seen a considerable number of cases in which the retroverted uterus has become impregnated, and have carefully watched the progress of gestation under these circumstances. The result has been a conviction that the most common cause of retroversion of the gravid uterus is not to be found in the state of the pelvis, or the condition of the bladder, but in the occurrence of impregnation in the retroverted uterus, and in the tendency of the organ thus impregnated to grow and develop itself during the early months of pregnancy, in the retroverted or retroflexed position. When an ovum is deposited in the retroverted uterus, the enlargement of the organ causes a greater sense of weight and pressure in the pelvis than ordinary pregnancy. The os uteri approaches the pubis, and the fundus projects towards the hollow of the sacrum. The fundus is found to enlarge considerably when examined from time to time by the finger. At length, unless the pelvis is of very large size, the bladder and rectum are pressed upon so as to interfere with their functions, and difficult micturition and defecation, especially the former, are the results. Owing to the retention of the gravid uterus within the pelvis, there is little or no increase in the size of the abdomen. There is usually a great amount of pain and discomfort in the lower part of the back, and the sympathetic affections of pregnancy are frequently more severe than usual. Abortion very frequently occurs from the mechanical irritation of the uterus."

After making some further general observations to prove the strength of his argument, Dr. Tyler Smith proceeded to say,—"In conclusion, I may observe that it seems to me the great use of the knowledge of the mode in which retroversion of the gravid uterus occurs will be in the prevention of the full retroversion, or strangulation, as I have ventured to term it, of the gravid uterus in the pelvis. As long as retroversion was supposed to take place suddenly and mysteriously, little could be done to avert it; but if, as I believe, the displacement dates from the very begining of pregnancy, in the great majority of cases, we may do much by position, and attention to the bowels and bladder, to prevent any dangerous symptoms; and, aware of the condition of the uterus beforehand, we shall be more ready to give prompt mechanical assistance when it becomes necessary to pass the hand into the vagina to carry the fundus above the brim.

"When retroversion has existed in early pregnancy, but has been relieved spontaneously or otherwise by the ascent of the fundus, labour takes place without any unusual difficulty. We ought, however, in the management of the puerperal state, to endeavour to prevent a return of the uterine displacement. The occurrence of pregnancy is rather favourable than otherwise to the cure of retroversion. In the later months of pregnancy, the fœtus acts as an intrauterine pessary; the organ is strengthened, and in the return of the uterus to the size of the unimpregnated state by the process of involution we have a better chance of curing retroversion than under any other circumstances. The abdominal bandage should not be tight enough to force the uterus into the pelvis. The patient should be encouraged to lie on her right or left side, inclining to the prone position, but avoiding recumbency. The bladder should be frequently relieved, and any violent straining during defecation avoided. She should remain in bed or on a couch longer than usual, and before resuming her ordinary duties the condition of the uterus should be ascertained; and if any tendency to a return of retroversion exists, an air pessary should be worn in the vagina as long as may be necessary to ensure a right position to the uterus.

"Several other cases of retroversion of the unimpregnated uterus, followed by retroversion in the gravid state, have fallen under my observation, besides those related in the present paper; but as they would only be a repetition of those already detailed, I will not trouble the society with the particulars of them. What has happened in my own practice must necessarily have occurred in that of others; and probably it is only necessary that the matter should be understood for the production of a number of well authenticated cases of the same kind by those engaged in obstetric practice. I must now leave it to the Society to decide whether the facts and observations which have been adduced do not prove that the Hunterian theory of gravid retroversion is no longer tenable; and whether we must not in future look upon retroversion of the unimpregnated state, which is well known to be a common affection, frequently admitting of impregnation, as the principal cause of retroversion of the gravid organ. In raising this discussion, I would yield to no one in veneration for the name of William Hunter, as being undoubtedly one of the greatest and most honoured names in obstetric science."

Dr. OLDHAM said that he had long entertained the opinion that the view of William Hunter was a mere mechanical fancy. He thought, with Dr. Tyler Smith, that the original cause of retroversion of the gravid uterus was the existence of this displacement prior to conception. Such cases were very common in hospital practice, and they generally gave but little trouble. He was in the almost daily habit of seeing them do well without any interference beyond a little attention to the bowels and bladder. He confessed that he did not like the author's use of the air pessary, for it might do harm, and in the greater number of instances mechanical attempts at replacement were unnecessary. When he found it expedient to interfere, he had for some years past resorted to a very simple but effectual proceeding. This consisted in gently opening the orifice of the vagina with the fingers, so as to allow the canal to fill with air. The consequence of this proceeding was that the vagina became much distended, and then gentle pressure with the finger upon the fundus of the uterus sufficed to push this organ upwards into the normal direction.

Dr. BARNES said that he had published a lecture one year ago on this subject, in which he thought would be found many of the views brought forward this evening. He believed that a previous retroverted condition of the uterus might be the most common cause of this affection in pregnancy; but he was sure that it also sometimes happens from accident, and that it may take place suddenly. He had tried Dr. Oldham's plan of reduction in two well-marked cases, but in both the proceeding failed to be of any service. Dr. Barnes also remarked, that he did not understand the principle upon which Dr. Oldham's plan could be expected to succeed.

Dr. WALLER was happy to agree with Dr. Smith. His rule in these cases was to do nothing in the majority of cases, unless the bladder and rectum got distended. He had withdrawn thirteen pints of urine in one case, which had been mistaken for dropsy, and the patient made a favourable recovery.

Dr. PRIESTLEY said the effects which had been chiefly spoken of in the discussion were those which arose in the later months; but there are other dangers which have not been noticed, and which occur in the earlier periods of gestation; especially there was the danger of abortion about the third or fourth month, and it was worth considering whether these abortions could not be prevented. Dr. Tyler Smith had recommended air-pessaries, but Dr. Priestley had had no experience in their use. There was often no difficulty in replacing the uterus by the finger; but it very often happened that directly the patient got up, the uterus fell back again into its abnormal position.

Dr. TYLER SMITH having replied to the various observations which had been offered, the Society adjourned.

Editor's Letter Box.

THE ROMAN BATH.

LETTER FROM HENRY ANCELL, ESQ.

SIR,—Having been admitted to the "Companionship of the Bath", through Mr. Erasmus Wilson's kind introduction to Mr. Witt, may I be permitted to append a few remarks to those which have already been published on the subject of the Roman Balnea?

Concurring with Dr. Wollaston, Mr. Erasmus Wilson, Mr. Spencer Wells, and other recent writers, as to the importance to health of the perfect physiological action of the skin, and on the power of the bath in restoring the functions of this organ when interrupted by any cause, it is not my object to traverse that ground. The effects on the structure and function of the skin I believe to be a minor part only of the action of the process which is now called the bath, and it is to some other of its effects on the economy that I propose to direct my observations.

The Roman bath is the most powerful sudorific known. Without stopping to discuss the *modus operandi*, a profuse perspiration, quickly induced, is its constant result, and one of the most prominent of its effects. It carries rapidly from the body a considerable quantity of water, with more or less of saline and organic matter. Before we can understand the action of the bath, then, even superficially, we have to consider the general relations of water to the animal economy.

This opens out a very wide subject; but I will endeavour to be brief. In adopting quantities, in the following remarks, I wish to be understood as doing so approximately, being quite aware of the margin which physiology allows. If, on account of some of my views, I should be accused of heterodoxy, I must allow judgment to go by default.

Physiological chemists estimate the water of the body from two-thirds to three-fourths of its weight (Burdach, Chevreuil). They describe it as existing therein in three states—1, in a static condition, as a constituent of the most solid structures—the bones, nails, enamel, for instance; 2, in a dynamic state, combined as an essential element with the other materials of the softer organic structures, as in muscles, nerves, and membranes; 3, as a liquid, holding various substances in solution in the blood and other fluids. (Lehmann's *Phys. Chem.*)

The blood, averaging 784 parts of water to 216 of soft solids, or, more exactly, the liquor sanguinis, 902.9 of water to 97.1 of solids, is the central recipient of all the water of the economy. The blood supplies to the alimentary canal, through the glands and mucous membranes, say twenty to thirty pounds or more of water daily, holding digestive principles in solution, and converting all the materials for nutrition into a very dilute fluid. Those who may not have considered this point will be a little startled at the estimated amount; but add the saliva, the gastric and other intestinal juices, and the bile together, and it will not, if the more recent physiological researches are to be credited, be found too high. The blood receives back, daily, an equivalent quantity of water; all the products of primary and secondary digestion, the pabulum for the nutrition of the organic tissues, and the effete materials of the tissues, being reconverted, by the agency of water, into thin liquids, and conveyed through lymphatics and veins, as also by the lacteals, to the blood. Hence there is not only a circulation of blood, but a continuous aqueous circulation in the economy—an outer circulation of fluids, and an inner circulation of blood—a greater circulation, which reaches beyond the blood, and at the same time includes the blood.

During this circulation of the fluids, water is lost to the economy, a portion being evacuated with effete matters, as urine, perspiration, and fæces; and a portion conveyed away in regulating animal temperature, by cutaneous and pulmonary transpiration. The water thus expended, under ordinary circumstances, is comparatively small. Its quantity differs very materially, according to age, temperament, climate, season, habits of life, and state of health. In order to have a wide margin, we may say from three to seven pounds are expended daily (Sanctorius, Keil). This loss, from a body containing 120 or 130 pounds, or more, is but a small percentage. The water is replaced mainly ready formed, as an essential part of the ingesta, and through the alimentary canal; absorption by the skin being only an exceptional occurrence. If there be a small excess of loss over the water of the ingesta, it is most probably compensated in the laboratory of life by the direct union of hydrogen and oxygen. Thus, virtually, a constant and necessary correlation between the water received into the system and the water evacuated exists.

The water employed in the economy is an approximate measure of the activity of the vital processes. The most healthy members of the community will be found in classes of men who, from laborious exertion, perspire freely and drink freely; their assimilation of solid food being in direct relation to the disintegration of tissue; both being measured, approximatively, by what may be termed the water of compensation. Of course, this relation is disturbed when stimulating drinks are taken in excess, or the blood contains any other acrimony. But it is well illustrated, although the cases are not quite parallel, in the vegetable kingdom. Take two plants of the *Corbæa scandens;* place them as nearly as possible under similar circumstances; water one freely, and you may make it grow at the rate of four or five inches daily; water the other scantily, and it will not grow above an inch daily; the assimilation of solid matter and the growth of the plant are just in proportion to the water employed. Bearing this in view, there are classes of society who never undergo laborious exertion; and numerous individuals are to be found who rarely, if ever, freely perspire. The very idea of a perspiration, such as the "Companions of the Bath" rejoice in, would frighten some of these people into fits. Owing to the cold and humid climate, and their sedentary habits, the water discharged and renewed in such subjects is reduced to a minimum, and is inadequate to sustain the healthful vigour of the vital processes. But for the kindly action of the kidneys, the consequence of this state of things would be more immediately serious than it is; but the kidneys cannot continuously perform their own functions and supply the defects of the function of the skin, nor do they ever thoroughly compensate for the loss of freedom in the action of the latter organ.

The blood is the central reservoir of the water of the economy. By way of illustration, taking the estimate to be correct of the quantity of fluid required for the solution of the digestive principles, the blood ought to part with the whole of its water of solution, and have the whole of it renewed, in much less than twenty-four hours, for the purposes of primary digestion alone. The proportion of water habitually contained in the blood forms a part of the physical constitution. The tissues, as we have seen, contain fixed quantities of water essential to their integrity; but they also always imbibe water as a liquid, holding saline and organic substances in solution. As there is a correlation between the water eliminated from and received into the blood, so there is a constant and necessary correlation between the proportion of water in the blood and the tributary fluids, including this fluid in the interstices of the tissues; and the water in the blood and that habitually pervading the solids and fluids of the economy varies, within limits, without detriment to nutrition or healthy function.

But the blood frequently becomes surcharged with water, and continues so habitually; this excess of water over the morphological elements and other constituents of the central fluid being accompanied with a comparative stagnation of the aqueous circulation of the economy. Such a condition has been recently designated "hydræmia", and is peculiarly liable to occur under the conditions of cold and moisture and the sedentary habits to which I have already alluded.

A state of hydræmia occurs as an element of disease under a great variety of circumstances. Loss of blood being supplied by absorption of watery fluid from the tissues, it attends anæmia, and appears to have been too much identified with absolute deficiency of blood. A relative excess of water is also produced by diseases probably seated in organs deeply concerned in the blood-making processes; hence it occurs in leukæmia, melanæmia, and the hæmorrhagic diathesis. It also occurs in various blood-consuming affections, as in the action of lead as a poison, and in typhoid and malignant fevers. In such diseases, it is a secondary element of the morbid state of the blood, being associated with a diminution of the proportion of fibrine or of the red corpuscles, or with excess of the white corpuscles, or with poisons and acrimonies, and various derangements of the constituent principles of the blood.

But hydræmia, "as an idiopathic disease, cannot be disputed." (Wedl, *Path. Hist.*) It is occasionally met with in moist climates and seasons, in its highest degree, leading to the worst forms of spanæmia, and producing fatal results. It occurs very frequently in this country, in a minor degree, constituting a proclivity to disease; and has prevailed very much of late. One of the great merits of the Roman bath I be-

lieve to be the power which it possesses of correcting this proclivity to disease.

Hydræmia is never produced permanently by an excess of the fluid ingesta alone. Drinking watery fluids in excess, the action of the excreting organs being perfect, occasions no inconvenience; enormous quantities of fluid may in this way be carried through the blood without injury. It does not disturb the water of the economy in its static or its dynamic conditions. Drinking water in excess also, the action of the excreting organs being temporarily interrupted, may produce temporary inconveniences, without being regarded as a disease. Hydræmia and its effects are the result of the continued operation of combined causes. Of these, a low temperature, with great humidity of the atmosphere, excessive ingesta or defective nutrition, and deficiency of active exercise, are the most direct. Every circumstance which tends to impede the action of the skin, the lungs, or the kidneys, and to interrupt the necessary expenditure and renewal and the perfect circulation of the aqueous fluids of the economy, conduces to the effect.

When the blood is hydræmic, it is thin and deficient in viscosity; and the fluids generally of the economy are too liquid. This condition cannot be maintained permanently without a correspondence taking place between the diminished density of the blood and the density and porosity of the parietes of the vessels, rendering them more distensible, and being favourable to the transmission of free liquids, whether it be by endosmose or any other process. Thus the tissues acquire the power of fixing more water than they ought to contain, leading to pallor, relaxation of the contractile fibre, diminished elasticity and plasticity, increase of bulk, diminished nutritive power, and diminished power of sustaining animal heat. A stasis of aqueous fluid in the tissues, even to the constituent cells and connective tissue, must be the result. We see the effects of hydræmia very remarkably exhibited in the mucous membranes, in their flabbiness and pallor; in relaxation of the uvula, trachea, larynx, and bronchial tubes; in fungoid-like tonsils; and in a tendency to profluvia in both sexes. It is exhibited in the flabbiness of the muscles, and in incapacity for continued active exertion. We see it also in the dyspepsia and hypochondriacism of vast numbers of people. The relaxation and debility of the intestinal tunics, and the extreme dilution of the digestive principles, account for this latter effect. It would be too wide a subject to consider this state of the blood as an actual disease producing hydræmic plethora, and oppression, dissolution of the red corpuscles, effusions, and other pathological results; or the question of the importance which ought to be attached to it in such fatal diseases as œdema of the lungs and glottis, and diphtheria. I have confined myself to the hydræmic condition of the blood as constituting a proclivity to disease.

The Roman bath suggests itself as the measure best calculated to correct this particular proclivity to disease. I am a novice, and I hope all I say on the subject will be taken as tentative. The bath induces the skin and pulmonary surface to discharge from the economy a comparatively large quantity of water in a limited period—say, at each bath, from one to two pounds, or a third of the quantity habitually discharged through all the outlets and renewed by the same individual in twenty-four hours. A very material point is, that a considerable portion of the water exudes as liquid, because this affects the saline and organic matter, which it is capable of carrying away with it in solution. The water is mainly derived primarily from the blood. I say mainly, because, at the high temperature of the bath, a degree of vaporisation of the interstitial fluids of the skin no doubt occurs; but this does not materially affect the reasoning.

Now, I fully admit the importance of the process in cleansing the skin and restoring it to its physiological condition, and I admit also that the morbid condition of the skin thus relieved is often, if not always, intimately associated with the persistent hydræmia; but the question arises, When the blood gives up its water thus freely, and flushes the sewers of the skin, what else happens? If as much water were always ingested as perspired, we might consider that it is merely passed through the blood, and limit our inquiries to the soluble substances it may find there, and be capable of carrying out. But, for my own part, I have never known the sense of thirst in the bath, and have taken but very little water indeed. One man perspired profusely, did not drink a drop, and lost one pound seven ounces in weight. The blood is very sensitive indeed of loss of its aqueous constituent; and when reduced in the slightest degree below its physiological standard, just as rapidly as it gives up, it absorbs water from the whole of the tissues. Thus, by the bath, the *remora* or the *stasis* of aqueous fluids is counteracted. The fluids, even from the interior of the constituent cells, are set in motion, and, with all the soluble particles of the disintegrated solids, are returned to the blood. The greater circulation of the aqueous fluids of the economy is restored to the condition of health.

I hope my friends and "companions" will not regard me as a traitor to the skin. Truly the Roman bath bringeth the skin to a just sense of its obligations. It cleanses it, and restores its physiological action, not only during the process, but in the intervals. But it also excites the absorption of water from the whole of the tissues of the economy. It may render the mucous membranes and the semisolids generally denser and more elastic, by relieving the hydræmic condition which prevails among the badly nourished, the luxurious, and the sedentary, constituting in many individuals a predisposition to serious diseases. I have said nothing of the effects on the nervous system of the alternations of heat and cold; of water being the only menstruum provided by Nature of acrimonious and poisonous materials requiring to be discharged from the economy; of the effect of the process on the heart and the circulation of the blood, and on the activity of the vital processes of the organic tissues and their constituent cells. But if the Roman bath is to be encouraged as an institution, whether as a hygienic luxury or for the treatment of disease, all these matters require discussion. I can believe that great mistakes may be made in the construction of buildings, and in the mode of conducting the process, if the principles of the action of the bath are not well canvassed. I am, etc.,

Henry Ancell.

3, Norfolk Crescent, Nov. 12th.

ACTION OF MERCURY ON THE LIVER.

Letter from Humphry Sandwith, M.D.

Sir,—Whatever may be the ultimate conclusion of the profession as to the soundness of Dr. Inman's views of the treatment of hepatic diseases by mercury, he is entitled to our thanks for the attempt to shew, that more has been taken for granted than observation and science warrant. To give scientific precision to our ideas in practical medicine, must lead to many innovations on long-cherished opinions. But while those which are untenable will be discarded, those which stand the test of rigid philosophic scrutiny will be fixed on an immovable basis. This is a great desideratum at a time when rational medicine is surrounded by a host of foes, and when even some of its luminaries so over-estimate Nature in the cure of disease as to depreciate art below its just level.

As truth is best attained by a candid consideration of the claims of any discovery to public confidence, I will venture on the attempt to distinguish between the unsound and the reliable points in Dr. Inman's views. A few of his propositions assume so disputable a shape as to challenge our distrust. When, for example, he questions the power of mercury over the secretory function of the liver, on the ground of the improbability of a retrograde action of the mercurial stimulus from the bowels through the biliary ducts, the objection is too mechanical to have any physiological weight. We might with even more reason question the influence of ipecacuan taken into the stomach over the secretory function of the bronchial membrane. We may also put aside as untenable his conclusion from Dr. Scott's experiments on animals, which, as Sir Henry Cooper has shewn, vitiate any argument drawn from them, on account of the probable interference of the injuries inflicted with the functions of the organ experimented on.

Dr. Inman's explanation, moreover, of the green colour of calomel stools, as being simply the result of undigested food and vitiated intestinal secretions, from their resemblance to the green diarrhœa of infants, is far from satisfactory. Nor does Dr. Thudichum's auxiliary explanation of the phenomenon, by attributing it to the presence of subsulphide of mercury, refute the probability that the green colour of the stools may be owing to the presence of bile. On this point authorities differ; Dr. Thudichum's explanation being at variance with that of Simon, who, in commenting on an analogous theory propounded by Dr. Bley, asserts, that "unfortunately for this theory the mercury cannot be detected by analysis, and Pettenkofer's test reveals the presence of bile." Highly, too, as Dr. Thudichum lauds Dr. Inman when he asserts that "a more rational paper had never been written", he nevertheless calls in question the assumption of the latter, that the clayey,

white stools of persons suffering from jaundice might contain the ingredients of bile, *minus* only the colouring matter; nor will he admit, as a reliable fact, either that the liver may secrete colourless bile, or that in jaundice the colourless part of the bile could go into the intestines, while the coloured part passes into the blood.

But waiving these deductions from the cumulative argument of Dr. Inman, enough of sound sense and scientific proof remains to show the questionable character of the commonly accepted views on this subject. Nor can we withhold the palm of merit from one who has succeeded to so gratifying an extent, in establishing principles which will more surely guide to the discovery of the real virtues of mercury, as well as to the development of the conditions which either secure its salutary effects or forbid its administration.

After all that Dr. Inman has alleged against the use of mercury in hepatic diseases, his sweeping censures still leave considerable scope for its beneficial employment in some of them, and those not the least important. To deny its direct cholagogue virtues by no means warrants the conclusion, that it cannot indirectly promote the secretion of bile by unloading the portal circulation in cases of simple hepatic congestion, as well as by arresting and absorbing, through its more specific action, the albuminous and fibrinous deposits in those of adhesive inflammation. "I believe," says Dr. Holland, "that a mistake is frequently made as to the manner of operation of calomel and other mercurials, in ascribing effects to their action on the liver which are, in fact, chiefly due to their influence on the mucous membrane and glandular follicles of the intestines." The latter of these offices, indeed, mercury shares in common with saline and some other purgatives, but possesses advantages peculiar to itself, in often doing its work alone in irritable states of the stomach which forbid any other agency. Meanwhile, its more specific, anti-inflammatory virtues, when it enters the circulation, are as conspicuous in hepatic disease as in iritis or endocarditis, but only, of course, as an indirect cholagogue, by freeing the secretory portion of the organ from those results of adhesive inflammation, whether in its parenchyma, or biliary passages, or peritoneal investment, which paralyse its functions. Of course, all allusion to other important adjuncts to mercury, in effecting a cure, is purposely omitted.

The lovers of this boasted panacea in hepatic affections may gather some crumbs of comfort from the above facts; while a vast range of influence in many other diseases is not denied to it by Dr. Inman. "That mercury," he observes, "is a powerful weapon in the physician's armoury, I readily allow; but it is the Congreve rocket of medicine. When properly aimed and true in its flight, nothing is equal to it; yet it is sometimes so erratic in its course, and its effects are so different to those it was intended to produce, that it is gradually losing the confidence of those who cultivate philosophic precision." Dr. Inman speaks the language of sober observation when he unfolds the positive mischief often produced by it in the abortive attempt to modify or augment the secretion of bile. The evils in question are too rife to need our colouring the picture by exceptional, yet admonitory, cases of fatal salivation, even by very small doses of mercury. It is surely, then, an object worthy of the highest style of medical philanthropy, to shield from the abuse of mercury so a large a class as those who, whether in England or in tropical countries, suffer from hepatic disorders other than those of simple congestion or inflammation, or from these latter in irritable or cachectic states of constitution. And a careful perusal of our best writers on the subject, will detect the language of emphatic warning against its indiscriminate or excessive employment, in a tone, too, of earnestness which rises with the progress of philosophic inquiry. But the crowning protest against a routine employment of mercury is Dr. Inman's recent anathema, at once launched from the depths of a profound pathology, and aimed with no small share of the precision of scientific discrimination. Nor will it prove a mere *brutum fulmen;* but heralded as it has been by Dr. John Hughes Bennett, as well as re-echoed by Dr. Thudichum, it is rousing a startled profession, some to resistance, and others to a candid acquiescence in the justice of the protest; nor can it fail to lead to inquiries which, in the end, will substitute a sound and rational, for an unsound and routine, practice. "In the present state of the science and art of medicine," observes Dr. Bennett, "there is no one point in therapeutics which so urgently requires thorough re-investigation, as the real value of the medical properties attributed to mercury."

On a review of the whole subject, it is truly refreshing to witness, in an age signalised by zeal for intellectual progress, so many powerful minds in our own profession bent on vindicating a high position for rational medicine among the sciences, which dignify human nature and benefit mankind.

I am, etc., Humphry Sandwith, M.D.,
Physician to the Hull General Infirmary.

1, Albion Street, Hull, Nov. 10th, 1860.

ACTION OF MERCURY ON THE LIVER.

Letter from Sir Henry Cooper, M.D.

Sir,—Dr. Inman asks me for the "grounds of my belief" that mercury does increase the secretion of the liver; and he further calls on me to prove that in any one instance I have known it to do so. I can furnish the only proof of which the nature of the case admits—that on which belief in the therapeutic action of all our remedies is founded; viz., that I have observed experimentally that stools having the physical properties of bile have *followed* the administration of mercury; and I have observed the same sequence of events in the great majority of cases in which I have administered mercury. The *onus probandi* is, however, as I stated before, on Dr. Inman, not on myself. I only disprove his objections to a doctrine established on the experience of the profession from time immemorial.

Dr. Inman introduces no new matter into his reply, and only repeats his opinion, for which he asserts he has given reasons. I believe I have shown those reasons to be fallacious in my former letter. I do not, therefore, see any motive for continuing the controversy; but I think there are obvious reasons, in the present state of the public mind on professional subjects, why it should not have been lightly provoked.

I am, etc., Henry Cooper.

Hull, November 12th. 1860.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

* *In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Of a son, the wife of—

Smith, William, Esq., Surgeon, Edmonton, on November 12.

Of a daughter, the wife of—

*Thurnall, William, Esq., Bedford, on November 6.

DEATHS.

Halls, John J., Esq., Assistant-Surgeon H.M.'s Bengal Army, on beard the *Ceylon*, on November 6.

Hoffmeister. On November 12, at Cowes, aged 14, Charlotte L., second daughter of W. C. Hoffmeister, M.D.

Inman. On November 12, at Liverpool, aged 10 months, Thos. Newham, son of *Thomas Inman, M.D.

*Jones, Thomas C., Esq., Deputy Inspector of Hospitals R.N., at Pembroke, on October 19.

Kendall. On November 11, at King's Lynn, Annie Frederika, third daughter of *T. M. Kendall, Esq.

*Wilson, John G., Esq., Clifton, Bristol, aged 63, on Nov. 8.

APPOINTMENTS.

*Macleod, George H. B., M.D., elected Professor of Surgery in Anderson's University, Glasgow.

*Prior, Frederick J., Esq., elected Mayor of Tewkesbury for the ensuing year.

PASS LISTS.

University of London. Second M.B. Examination. 1860. The following is a list of candidates who have passed the late second examination for the degree of Bachelor of Medicine:—

First Division.

Bartleet, Thomas Hiron, Queen's, Birm., and King's
Bracey, Charles James, Queen's, Birm., and King's
Braithwaite, James, Leeds School of Med., and Guy's
Cayley, William, King's College
Cooke, John, St. Thomas's Hospital
Easton, John, King's College
Gervis, Henry, St. Thomas's Hospital
Gibson, Francis William, B.A., University College
Grabham, Charles, St. Thomas's Hospital
Harley, John, King's College

Sims, William, King's College
Smith, Eustace, University College
Watson, William Spencer, King's College
Watts, Robert, University, and Bengal Med. Colleges
Weaver, Frederick Poynton, Liverpool Inf., and Guy's
Winslow, Henry Forbes, King's College
Winterbotham, Wash. Lafayette, University College
Woakes, Edward, St. Thomas's Hospital

Second Division.

Hickman, William, University College
Lever, Reginald Croft, King's College
Pile, William, University College
Ringer, Sydney, University College
Rutter, Joseph, University College
Saunders, George James Symes, King's College

Royal College of Surgeons. Members admitted at a meeting of the Court of Examiners, on *Nov. 13th*:—

Batho, William, Amesbury
Bennett, C.H., Hammersmith
Bentham, A. L., Portsmouth
Buller, Edwin, Jersey
Clarke, S. E., Armathwaite
Corin, William J., Redruth
Dunn, G. C., Kensington Park Gardens
Freeman, D., Kennington
Gannon, John Palmer, Oxford
Goldie, George, Blyth
Harding, Geo., D., Woolwich
Hovell, C. H. J., Canterbury
Jeffery, Edward, Exeter
Jones, John, Brighton
Junker, F. E., London
Kerswill, Geo., St. Germans
Langdon, John, Yeovil
Pattinson, Robert, Wiggonby
Phillips, Geo. G., Newcastle Emlyn
Scott, Frederick, Cheltenham
Smith, Rd. W., Nova Scotia
Wadley, W. E., Plymouth
Ziervogel, Jeremias F., Cape of Good Hope

Wednesday, November 14th.

Bromley, John B., Stourbridge
Callon, William J., Liverpool
Cheese, James, Jersey
Climo, William H., Belmullet, Mayo
Davies, Henry, Crossinn, Carmarthen
Finch, Thomas, London
Fowler, Francis B., Bath
Gayton, William, Spitalfields
Hall, A. R., Topsham, Exeter
Hall, Marriott, Sheffield
Hoyle, William, Slaithwaite
Laidler, J., Stockton-on-Tees
Langford, H. E., Chesbury
Litchfield, H. R. C., Twickenham
Masters, William H., Yeovil
Morgan, John, Clifton
Nash, R., Weston-super-Mare
Racy, John, Quebec
Sealy, John, Barbadoes
Stawman, William, Wakefield
Steele, Charles, Clifton
Taylor, Daniel, Bury
Thomson, William, Edinburgh
Thursfield, Thomas W., Kidderminster
Ward, Henry, Diss
Wilson, W. J., Straid, Antrim
Wheeler, Henry, Clifton

New Fellows. At a meeting of the Council of the College, on November 9th, the following members, who had been elected Fellows at previous meetings of the Council, were admitted as such:—

Bedwell, Henry, Cheltenham; diploma of membership dated June 26, 1840
Bowness, Robert H., Poulton-le-Fylde, Lancashire; May 7, 1838
Carr, William, Blackheath; May 29, 1837
Chapman, Richard, Kirby Moorside; February 5, 1819
Cooke, Robert H., Stoke Newington; February 15, 1839
Taylor, John, Bayswater; June 26, 1840
Williams, Robert H., Great Eccleston; May 9, 1834
Wood, Frederick, St. Bartholomew's Hosp.; July 2, 1841

The Australian Museum. Mr. Simon Rood Pittard, M.R.C.S., formerly one of the senior students in human and comparative anatomy in the Hunterian Museum of the Royal College of Surgeons of England, and subsequently a lecturer at the Grosvenor Place School of Medicine, having been appointed Conservator and Secretary of the Australian Museum, has been giving a course of lectures on Comparative Anatomy in that institution. The *Sydney Morning Herald*, speaking of this gentleman, states that "Mr. Pittard is remarkably successful as a lecturer. He not only possesses a thorough knowledge of his subject (the result of a highly cultivated taste for zoological science), but he has also the very rare talent of imparting the knowledge he has accumulated in such an easy and agreeable form as immediately to arrest the attention and store the memory of those who hear him."

Blane Prize Medals. These medals founded by the late Sir Gilbert Blane, Bart., have just been awarded to Walter Dickson, (B.) M.D., of H.M.S. *Chesapeake*; and William Duirs, M.D., M.A., of H.M.S. *Boscawen*.

Our Marine Hospitals in China. There is no subject in which all England, from Her Majesty to the peasant, takes so great an interest as the treatment of her sick and wounded soldiers. On the 27th ult. I went out to the fleet, and was occupied during the following day in visiting the hospital ships. They are four in number. The *Mauritius*, an iron steamer of 2,134 tons, is fitted for 212 beds. Her bunks are arranged in two rows, one above the other, an arrangement open to considerable objection. The upper berth can only be reached by a ladder, up and down which a man suffering from dysentery must mount and descend times innumerable. For the surgeon, also, whose patient's limb is fractured, the fittings of the *Mauritius* are most inconvenient. She could not conveniently hold more than 160 beds. Fortunately, her capabilities were not tested to anything like that number, for she only had on board nine officers and fifty-six sick and wounded. Her ports are too small; and, were she much crowded in hot weather, one of her wards—empty when I saw it—would be quite unfit for hospital purposes, being close to the engine and very confined.

The *Melbourne*, an iron steamer of 1,300 tons, had 120 beds, every one of which was occupied, and three wounded officers were in her cabins. The *Sir William Peel*, a wooden steamer of 1,500 tons, had eight officers and seventy-four men on board, being fitted for 100; and the *Lancashire Witch*, sailing ship of similar burden, contained two officers and eighty-two men, with accommodation for ninety-six. The two latter ships were taken up and fitted out at Hong-kong with iron beds riveted tight into the deck. All the occupied wards were well ventilated, and even early in the morning were fresh and free from smell. But the *crême de la crême* is the *Lancashire Witch*. There is no engine-room to break the whole sweep of the main deck, upwards of eight feet in height, so the most perfect ventilation is secured. The men were hearty and cheery. Each man had good flannel clothing, and on every bed was a clean pair of sheets and a famous blanket. Each vessel was supplied with a complete file of the London papers and a good selection of books. The men seemed most grateful for this, and nearly every one not too ill to read had in his hand a paper, arrived by the mail of the previous day.... Every man was resigned to his fate; and an artilleryman, whose leg had been amputated, cheerily hoped to obtain a situation among the soldier *commissionaires* of London. Various games had been sent from the War-office—chess, backgammon, draughts, solitaire, etc. As to stores and medical comforts, these ships contain a supply of everything that by the most remote possibility can be needed. It made one's mouth water to see the portable soups, the potted meats, the preserved vegetables, and the other good things, ranged in the store-rooms, tier over tier. Boxes of sago, tapioca, and other necessaries of that kind, would have fitted out a large grocer's shop, while the cellar was filled with champagne, claret, port, and sherry, not forgetting bitter beer. In short, there was nothing whatever that could be required for the care and sustenance of the sick, the wounded, and the convalescent, which was not provided. Exception has been taken to the expense incurred on board these vessels; but I put it to every man in England—by whom, after all, the bill is paid—whether he regrets one farthing that has been properly spent with a view to the comfort of the sick and wounded? Even in the economical point of view, the British soldier in China is a costly article, and a few thousands more or less are well expended in restoring and preserving his health. But I need not labour the subject. The Crimea taught that prevention is not only better, but cheaper than cure, and we have profited by the lesson. The sick and wounded are tended with the same care and solicitude as in the best London hospitals, and the arrangements made by Dr. Muir and his staff leave little or nothing to be desired. (*Correspondent of Times.*)

HEALTH OF LONDON—NOVEMBER 10TH, 1860.

[From the Registrar-General's Report.]

	Births.	Deaths.
During week ..... { Boys.. 890 / Girls.. 801 }	1691	.. 1084
Average of corresponding weeks 1850-9	1636	.. 1192

Among the causes of death were—bronchitis, 96; pneumonia, 94; phthisis, 109; small-pox, 5; scarlatina, 47; measles, 49; diphtheria, 12; hooping-cough, 44. The deaths from pulmonary diseases (exclusive of phthisis) were 207, being 2·6 below the corrected average.

Barometer:
Highest (Wed.) 30·332; lowest (Sat.) 29·679; mean 30·114.

Thermometer:
In sun—highest (Wed.) 92·0 degs.; lowest (Sat.) 47·0 degs.
In shade—highest (Wed.) 51·7 degs.; lowest (Sun.) 29·5 degs.
Mean—40·1 degrees; difference from mean of 43 yrs.—5·0 degrees.
Range—during week, 22·2 degrees; mean daily, 12·5 degrees.

Mean humidity of air (*saturation* = 100), 91.
Mean direction of wind, E.—Rain in inches, 0·18.

TO CORRESPONDENTS.

ANONYMOUS CORRESPONDENTS should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

Any amount of manuscript or printed matter, singly or together, provided it contains nothing in the form of a written letter, is transmitted through the post, in packets *open at the ends*, at the following rates: not exceeding 4 ounces, one penny; above 4 and not exceeding 8 ounces, twopence; above 8 ounces and not exceeding 1 pound, fourpence; for every additional half-pound or under, twopence.

Communications have been received from:—MR. H. ANCELL; MR. TOYNBEE; DR. E. L. FOX; DR. KIDD; MR. T. M. KENDALL; DR. HUMPHRY SANDWITH; DR. A. T. H. WATERS; MR. E. PARKE; SIR HENRY COOPER; MR. HENRY DUNCALFE; DR. WOLLASTON; DR. INMAN; MR. PRICE; DR. T. OGIER WARD; MR. HECKSTALL SMITH; DR. A. WYNN WILLIAMS; MR. T. L. PRIDHAM; MR. A. PRICHARD; DR. J. DULVEY; DR. W. ADDISON; DR. T. SKINNER; THE SECRETARIES OF THE MEDICAL SOCIETY; A CONSTANT READER; and MR. STONE.

BOOKS RECEIVED.

[* *An Asterisk is prefixed to the Names of Members of the Association.*]

1. Infant Feeding and its Influence on Life: or the Causes and Prevention of Infant Mortality. By *C. H. F. Routh, M.D. London: John Churchill. 1860.
2. The Modern Treatment of Syphilitic Diseases, both Primary and Secondary; comprising the Treatment of Constitutional and Confirmed Syphilis by a Safe and Successful Method: with Numerous Cases, Formulæ, and Clinical Observations. By *Langston Parker, F.R.C.S. Fourth Edition, entirely re-written, with Numerous Additions. London: Churchill. 1860.
3. On Infantine Mortality as illustrated by Private Practice; with Suggestions for Future Inquiries. By W. T. Gairdner, M.D. Reprinted from the *Edinburgh Medical Journal*, November 1860.
4. The Composition of the Urine in Health and Disease, and under the Action of Remedies. By Edmund A. Parkes, M.D. London: Churchill. 1860.

ADVERTISEMENTS.

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The *Edinburgh Medical Journal*.
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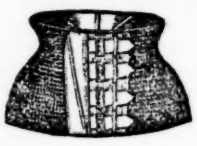

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